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ABSTRACT

This report makes recommendations for the establishment of an active research and evaluation program for the Open Learning Institute (OLI) and the Knowledge Network (KN) of British Columbia (Canada). It is suggested that the OLI and KN programs develop a framework for evaluating their own performance, that the database be improved to provide information for evaluation and decision-making, and that evaluation procedures be established for course evaluation, project management, student services, KN reception and utilization, and organization and funding. A 21-page Summary of Recommendations and seven appendices, including a listing of OLI staff publications, supplement the text. (EW)

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THE OPEN LEARNING INSTITUTE

AND

KNOWLEDGE NETWORK

A PROPOSED PROGRAMME

FOR

INSTITUTIONAL RESEARCH AND EVALUATION

SUMMARY OF RECOMMENDATIONS

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General

1. At least over the next three years, research and evaluation activities should receive as high a priority as course production and programming. This will require either finding additional resources, or a moderate but noticeable re-direction of existing resources to research and evaluation activities.

2. Staff who write papers should be encouraged to lodge a copy, including a short abstract, with the Librarian (who compiled the list in Appendix C.) This list should be kept up to date, and new additions to the list circulated (with abstracts) twice a year to all OLI and KN staff.

Creating a framework

3. Each programme area or department should be responsible for evaluating its own performance; consequently, each programme area and department should be responsible for:

   (a) identifying and reviewing its own performance criteria, and having these accepted by the next senior level of management;

   (b) identifying the information it needs to collect on a regular basis in order to evaluate its own performance, and collecting and analysing that information

   (c) identifying and implementing special research projects which aim to enhance the performance of the department

   (d) formally reviewing, at least once a year, its own performance, in the form of a report to the next senior level of management; it is at this point that next year's performance criteria should also be considered and agreed. Research and evaluation data would be one of the sources of information on which this review would be based.

   (e) department and programme area heads should provide a short report as a result of this review to the CEO, and these reports should be discussed at the Executive Council. The CEO should write annually a summary report on performance for the

Board meeting (in May?), using both these reports and statistical information on course enrolments, completion rates, and trends (see recommendations regarding the data-base for more details).

4. The OLA Board needs to disseminate to staff of both institutions the fundamental change in stance regarding their role following the adoption of the Mission and Goals statement: the implications for working style and professional development need to be explained and understood by staff at all levels, but especially by senior managers, who need to take positive steps to encourage professional development. Without this, the climate necessary for good quality research and evaluation (and, more importantly, for achieving the broader Agency goals) will not exist.

5. Every member of staff should be encouraged to have a planned set of professional development activities over a year's period. These activities should be of benefit both to the individual and the Agency. It should be the responsibility of each manager to negotiate professional development activities with staff in their department. Each person should be entitled to the equivalent of half a day per week, or 25 days per year, minimum, for approved professional development activities, to include personal research activities, attendance at conferences, training courses, visits or exchanges with other relevant institutions, overseas consultancies, approved courses of study, work on new developments, and other non-operational activities which lead to increased competence in the post. Thus the 25 days will include a number of activities already being carried out. This general principle should apply to <u>all</u> levels and grades of staff, although the amount of time for professional development activities may vary across grades.

6. There are several ways in which central staff can be brought into meaningful and useful contact with students and tutors:

   (a) appointment of a student and a tutor representative to the OLA Board

   (b) the appointment of a paid student editor for the OLA newspaper, with a remit to increase the number of student subscribers and contributors

   (c) appointment of a student or tutor to selected project management teams

(d) establishment of a students' association, with elected student representatives; OLA to provide audio and/or computer conferencing, including the use of a students' bulletin board for elected representatives

(e) provision of two or three self-operated video boxes, which record viewer's comments, and which can be broadcast back to the audience at a later date, to provide direct feedback on KN programmes

(f) occasional weekend student/tutor get-together days, within programme areas, to discuss general student issues (study techniques, course choice), etc., on an optional, voluntary basis.

7. Two kinds of research and evaluation activities for the Authority are proposed:

(a) regular activities (such as course evaluation) which are built into project management;

(b) special projects: individual studies, commissioned or approved either within KN or OLI, or in conjuction with other agencies

In either case, procedures are proposed to ensure that each type of activity is approved, properly resourced and professionally conducted.

The data-base

8.1 Improvements to the data-base along the lines proposed should receive the highest priority in the Information Systems development programme.

8.2 Data from the data base should be accessed for a specific reason, related to policy or decision-making; this means there should bespecific times when the information is needed, and a specific person or set of persons who would be committed to using this information.

8.3 Routine or regular provision of information should therefore be kept to a minimum, and related to particular regular decisions or policy requirements.

8.4 Self-access should be the main way in which the data-base should be used. In other words, instructional designers, middle managers, and senior managers (or their assistants) need to be able to get information from the data-base relatively easily. Those people who need information should not only be responsible for defining their needs, but should wherever possible access it themselves, at times when they need it, and without having to learn specialist programming skills; advice though should be available on the best means to obtain the information required. Appendix D outlines some of the analyses which it ought to be possible to access easily and conveniently.

8.5 It is important to define the research and evaluation needs of different groups of people and to develop procedures of data abstraction which meets those needs. The following needs have been identified:

i Course maintenance. It will be recommended (9.5) that each course should be reviewed as soon as possible after the first semester presentation of that course. Thus for each new course, the print-out in Appendix F should be commissioned by whoever is responsible for course maintenance. (A programme for this already exists). If any further information is needed from the data-base, this should be acquired by the maintenance person by directly accessing the data-base.

ii Middle management (directors, course co-ordinators, possibly vice-presidents). They need an overall picture of the progress of courses in their areas. It is recommended that this is necessary only once a year, rather than semester-by- semester, as at present. Once a year, middle management should get the print-out outlined in Appendix G, covering a full year period, i.e. for all students registered for each semester within a specified year-period. All course maintenance people should also automatically get a copy, so they can see how their individual courses compare with others.

iii Executive Council and the Board The Executive and the Board need an annual picture both as a form of accountability, and to help inform discussions regarding future policy for the Institute/Authority. A statistical summary (as outlined in Appendix H) therefore should be provided to the Board and Executive Council. The annual course statistics should cover a full financial year, to make it easier to relate expenditure to performance. This summary should be the main document, but Appendix G would also be available to

the Executive Council and Board members, for those who want to look more closely at the figures.

8.6 Where it is not possible to access easily the required information, or where a detailed or complex investigation is required, this should be treated as a project, with the consequent need for approval and allocation of suitable resources, and setting of priorities. These enquiries would entail the use of a specialist to obtain the necessary information, and possibly special computer programmes to be written.

8.7 The existing tools for organising and extracting data are not adequate for allowing easy and convenient self-access for the purposes of undertaking statistical analyses. What is required is a programme which automatically merges new student data with existing student data, in a consistent way for all students, to create a dynamic, up-to-date master student file.

8.8 Once this basic master student file is created, standard statistical analysis software packages (such as SPSS) can be bought, which will enable data to be easily abstracted in the form required by anyone authorised to do so, whether or not they have programming skills. It is recommended that such a package capable of running on the mainframe should be purchased.

8.9 For research or evaluation enquiries requiring substantial statistical analysis or cross-breaks, the appropriate information required (e.g. information about students on a particular course) should be abstracted from the master data-base for local processing on micros, thus reducing CPU time. This would require purchasing one suitable micro for each main programme area (i.e. approximately five) plus suitable micro software packages, to provide statistical analyses and cross-breaks. Thus simple analyses could be run directly on the mainframe; more complex analyses would be done on micros, to reduce CPU time.

8.10 In order to provide accurate costing and an efficient implementation of these recommendations, Information Systems should be requested to do an initiation study to see what is required to provide a basic, dynamic master student file, and what packages would be most appropriate for abstracting and analysing data, including standard statistical tests.

Course evaluation

9.1 Course evaluation should be considered as a component of the project management process

for course design and delivery, for every new course.

9.2 Courses should be designed with the firm intention of running for at least six semesters without changes; in most cases, changes after that date would be restricted, and limited wherever possible to one set at a date and within resources agreed in the planning stage; in other words, the aim is to design courses which are viable from the first date of presentation

9.3 The following course evaluation decisions need to be made at the project management planning stage:

(a) discussion of overall evaluation strategy, followed by a decision regarding whether a standard or special evaluation approach should be adopted for the course

(b) evaluation costs, work-load and responsibilities, and the timing of the evaluation

(c) the implication for resources, production, delivery and tutoring of any changes likely as a result of evaluation

9.4 A standard evaluation approach would ensure that every new course is reviewed at a set time soon after first presentation. Details of how this is done can be refined and possibly simplified, but one suggested procedure is as follows:

(a) every new course should be reviewed within six months of the first semester of presentation (or as near as possible to that time, if examination arrangements prevent results being available within that period)

(b) collection and analysis of information for the course review should be seen as part of the maintenance of a course (i.e the management of a course during its presentation); one person (i.e. the person responsible for course maintenance) should be responsible for co-ordinating evaluation information

(c) an evaluation file for each course should be opened from the start of course design; into this file would go course developer's doubts and queries about design, course consultant's comments, delivery and tutoring issues, errors spotted after delivery, letters and phone-calls from students, advisers and tutors, and any emergency action taken; the

file should be kept open for the whole life of a course.

(d) emergency action would be taken within the first six months of course presentation only in exceptional cases (i.e. where serious consequences likely to lead to widespread failure would result because of not acting).

(e) the person responsible for course maintenance should commission within six months of the first presentation of the course:

i a standard print-out of the first semester enrolments and grade distributions (see recommendation 8.6.i.)

ii tutor statistics (see recommendation 12.3)

iii. a statistical analysis of assignment and examination questions as soon as they are available; these can be compared with data from other comparable courses; if necessary, more data (e.g. student demographics) can be called up from the data-base (recommended changes to the data-base will make this procedure much simpler and easier than at present). This information would be added to the evaluation file.

(f) The senior tutor or course co-ordinator should formally contact tutors (and exam. markers if different) by phone after the first examination for detailed comments on the course, using a semi-structured set of questions, designed in conjunction with the course developers. The senior tutor or course co-ordinator would then write a report on the course based on this tutor feedback. This report would be added to the evaluation file.

(g) the senior tutor or course co-ordinator would then prepare a report on the course, using all the information in the evaluation file, including a recommended course of action. A copy would be sent to the head of the programme area.

(h) if the course is considered to be generally satisfactory, or changes can be accommodated within the maintenance budget, the evaluation file would be kept open by the course maintenance person, who would also be responsible for drawing attention to any subsequent developments which might require unplanned changes to the course;

(j) if there are major problems, which cannot be easily explained from the standard evaluation (e.g. an unusually high drop-out rate), the head of the programme area would decide whether to bid for funds for a special evaluation; whether to leave the course as it is; or whether to withdraw the course altogether

(k) where changes are being proposed to an existing course, tutors should be consulted about the proposed changes

These recommendations need not be followed in detail, but provide an example of how a standard evaluation procedure might be conducted.

9.5 A special evaluation of a new course may on occasion be appropriate, but as an exception rather than a general rule. This would involve a more detailed study of a course, and would usually be linked to a prior commitment to substantial changes to the course as a result of the evaluation, if this proves necessary. Special evaluations, because of the cost, should be used selectively. One procedure would be as follows:

(a) If a special evaluation is decided at the initial planning stage, it should be timed so that information is collected during the first and possibly second semester; otherwise, information should be collected as soon as possible after a standard evaluation has identified problems. It will usually be necessary then to run a course for several semesters before a revised version can be introduced.

(b) Special evaluations should use postal questionnaires and/or telephone interviews for students, and any informal group discussions that can be arranged, as well as the procedures outlined for standard evaluations.

(c) Once the information is collected, decisions should be made about necessary changes, within the budget allocated; in addition, an executive summary should be widely circulated and an open seminar held to discuss the implications of the report

9.6 Piloting or pre-testing of courses should be treated as a special evaluation.

9.7 It is recommended that each major programme area should review its activities annually. This

would be a meeting of the staff within a programme area, chaired by the head of the programme, which would look at courses, delivery, tuition and other issues. The aim of the review would be to identify necessary changes to next year's programme of activities, and might coincide with budget projections for the following year. For this meeting, a paper should be drawn up which provides a summary of enrolment and grade information for all courses in the programme area over the year period (see recommendation 8.6.ii.). Course evaluation reports prepared during the year would support this documentation.

Project research

10.1 Evaluation should be built into project management. This means:

(a) discussing the evaluation strategy at an early project planning stage

(b) determining at this stage the necessary resources (manpower, funds, and timing of evaluation)

(c) conducting evaluation as a defined, continuous activity throughout the project

(d) defining criteria for success

10.2 Evaluation designs for development projects should be flexible, to reflect the context of the project, and the often exploratory nature of development projects; initial objectives for instance may legitimately be revised as a result of experience

10.3 It is important in the evaluation of development projects to look at <u>process</u> as well as outcomes (how best to do things, as well as looking at costs and learning results). This may require:

(a) a qualitative, observational approach

(b) identification and recording of key events in a project

(c) <u>explanation</u> of why events/decisions were made, as well as description

(d) examination of the teaching or decision-making process, examining, for instance, the nature of interaction between learners and teachers, or what kinds of learning take place as a result of developmental activities

(e) analysis of the development's impact on work roles, need for new skills, training, etc.

(f) resource implications, not only in terms of costs incurred, but how a new development affects the balance of costs between different activities and spending departments (e.g. audio conferencing may require a shift of costs from production to delivery)

10.4 For these reasons, it is recommended that evaluation of development projects should generally be conducted internally, i.e. by project staff, but with external assistance from a professional evaluator, acting as a consultant, wherever possible. This means that evaluation resources may better be spent increasing the internal manpower of a project, to allow internal staff to have adequate time for evaluation activities. Credibility will depend then on high quality, clearly written evaluation reports, which allow those not directly involved to understand the development project, its achievements and difficulties.

10.5 To ensure high quality evaluation, it is recommended that evaluation should account for a minimum of 10% of internal manpower resources on a development project.

11.1 All research projects should go through a formal approval procedure, to ensure projects of significance are undertaken, to avoid duplication and to ensure that they are competently conducted.

(a) Bids can be proposed by any individual or group of staff, but should be discussed with their superior manager and referred upward for approval

(b) The Executive Council should assess and if appropriate approve any single research proposal requiring more than $50,000 of resources (manpower and/or cash), or involving co-operation with external institutions, or paid for out of the Executive's own research and development budget

(b) Vice-Presidents should assess and if appropriate approve any project within their area requiring less than $50,000 worth of resources from within that area

(c) The Director, Research and Evaluation Methods, should be consulted regarding the assessment of all research proposals (see recommendation 14.2)

11.2 Research projects may be resourced from the following sources (see recommendations 14.5-14.10):

(a) re-assignment of duties of internal staff (e.g. reduction in production activities)

(b) a sum of money held by Executive Council (recommended amount: $100,000) and/or a sum of money available to each of the four component areas (recommended amount: $50,000 each); these sums of money may be used either to buy out internal staff from operational duties (using the money for staff replacements), or to hire in external research staff

(c) use of professional development time of internal staff

(d) external funding or assistance from other institutions

(e) any combination of the above.

The aim is to provide flexible but limited sources of funding for research projects.

11.3 In general, it is better to encourage staff to conduct research as a team rather than in isolation. Resources should be concentrated on a limited number of significant projects rather than lots of small projects.

11.4 It is recommended that the approval procedure and sources of funding for development and research projects should be the same.

11.5 Sources of external funding, and co-operation with external agencies, should be developed wherever possible. University post-graduate students should be encouraged to work with the OLI and KN, under joint supervision, to collect data and conduct research studies. OLI and KN should help University staff define significant research areas suitable for study by doctoral students. Joint studies on common areas of interest (e.g. drop-outs, learning at a distance, tracer studies following the progress of students) should be carried out jointly with

other open learning and distance education institutions, through both the proposed Centre for Research and Education in Open Learning, and through the various Canadian distance education associations (CADE, WCCUDE).

11.6 However, the opportunities for such joint and external activities should not deflect OLI and KN from their responsibility to set their own priorities for research and evaluation, and for conducting their own internal research and evaluation activities.

11.7 It is recommended that the following research projects should receive top priority. I have put them in my own order of priority, but the actual ordering of priority should be determined by the Executive Council:

i Information Systems to develop a basic, dynamic master student file, and purchase of packages appropriate for abstracting and analysing data, including standard statistical tests. This should be a top priority within Information Systems (existing) development budget, since without it, evaluation and research cannot really begin

ii development of an accurate and practical means of costing OLA activities (essential for project management) - funded from (new) Administration research funds

iii Knowledge Network audience research study (see proposal 12.2): from (new) KN research funds, perhaps linked to (v) and (vi) below

iv at least one special course evaluation per year (as well as standard course evaluations on all other new courses) in each of the Open University, Open College, and KN programme areas (research funds from appropriate areas' research budgets)

v profiles of the OLI student: a statistical analysis of age, occupation, education, motivation by programme area, and comparison with the general population of B.C.: using new data-base and new project officer (no other cost)

vi market survey, to identify the public's knowledge and opinion of OLI, KN and OLA, and their perceived relevance to individual's needs: (new) Executive Council research fund

vii study of means to link OLA better to provincial and federal industry, commerce, government and voluntary organisations, to identify better their continuing and distance education needs, and to educate them into the potential of open learning (e.g. directory of agencies and contacts, high-level conference, etc.): from Executive Council Research fund, with staff seconded from relevant programme areas (this should be a low-cost project, using existing resources as far as possible)

viii identification of obstacles to qualification through open learning; barriers to the pyramid of opportunity: individual case-studies, showing the perspective from the individual student: from Executive Council research fund - link to (ix)

ix tracer studies: what study paths do OLA students follow; what happens to drop-outs; where do OLA students come from (in terms of previous educational activities)? where do they go to? - from Executive Council research fund

x project to identify whether there is sufficent field support for students, and if not, what steps can be taken to improve student support, and in particular whether the role and recruitment of tutors needs to be changed, and what role other universities and colleges might play in providing field support to OLA students to increase student support: from Executive Council research fund or Administrative research fund

xi study of specific B.C. open learning needs and the needs of minority groups: how does open learning look from their perspective; what are their special needs; what can be done for them? Some prospective groups:

- long-distance fishermen (Open College budget)
- BC people working overseas (University budget)
- lumber industry (Open College budget)
- mining industry (Open College budget)
- really remote students (Administration research budget)
- native Indians (Open College/ABE research budget)
- handicapped students (Administration research budget)
- unemployed students (Open College/ABE research budget)
- English as a second language (Open College budget)

No doubt other minority groups could be identified.

xii An analysis of the reliability and validity of assessment questions (see proposal 12.8): from Administration budget

Student services

12.1 Tutors should be evaluated on

(a) their efficiency in turning round assignments

(b) the reliability of their marking of assignments

(c) the quality of their communication with students (comments on assignments, advice and help to students)

These three criteria should be of equal importance.

12.2 Senior tutors should be responsible for evaluating tutors in their subject areas. Where there is no senior tutor in a subject area, it should be the responsibility of the course-cordinator, but this should be only a temporary arrangement until a senior tutor post is available. The need to evaluate tutors should be taken into account in senior tutor workloads.

12.3 A senior tutor should normally request a copy of at least one assignment, preferably more, per tutor per semester from registry. If there is cause for concern, the senior tutor should then request to see a sample of the tutor's next batch of assignments. It may be necessary as a result of such an inquiry to re-grade assignments at the discretion of the senior tutor. Senior tutors should also contact each tutor on a regular basis by telephone or other means. Unless a system like TRIX is installed, senior tutors should also be sent each semester a print-out of assignments submitted and marked by all tutors in the subject area. (A computer routine already exists for such a print-out). This would indicate turn-round time and quantity of assignments marked by each tutor. In exceptional cases, senior tutors may also want to contact students directly by phone if they are concerned about a tutor's performance. The main purpose of monitoring tutor marking and commenting would be to help tutors improve performance, rather than to assess the need to terminate employment, although that may be

necessary in extreme cases.

12.4 There should be an agreed and clearly publicised student appeal procedure regarding assignments. The senior tutors should deal with student appeals regarding assessment of individual assignments. The procedure, including to whom appeals should be made, should be printed in the OLI calendar.

12.5 Senior tutors, in association with their course co-ordinators, should be responsible for organising occasional workshops for tutors, on assessment strategies, counselling, and giving helpful study advice, etc.

12.6 Information Systems should be asked to conduct an initiation study to identify the feasibility and costs of introducing the TRIX system.

12.7 It is recommended that a research project is undertaken to identify whether there is sufficent support for students, and if not, what steps can be taken to improve student support, and whether the role and recruitment of tutors needs to be changed to increase student support. It should look in particular at the roles that regional colleges might play in increasing local support for provincial distance education students. The project should involve a management team which would include a remote tutor, a representative of a regional college, a Programme Area Director or course co-ordinator, a remote student, someone from the registry, Jan Muirhead or Denise Hartmann, and a regional student advisor. It would conduct a survey of students and tutors, and would prepare financial estimates for any recommended changes.

12.8 It is recommended that, as well as monitoring by senior tutors, a means of analysing the reliability and validity of both continuous and examination assessment questions is devised, to ensure consistency in the level of qualification. A small project team should be established, consisting of a programme area director or course co-ordinator, someone from the registry, someone from Information Systems, and an external consultant specialising in examination validity procedures, to recommend methods and procedures.

Knowledge Network

13.1 A survey needs to be commissioned from a leading market research or census organisation

(possibly Statistics Canada), to identify accurately, through careful sampling, Knowledge Network reception capability and utilisation within the province. If possible, the KN enquiry should be piggy-backed on a household survey already planned by the external research organisation, to reduce costs. The aim would be to identify across the province the number of households able to receive KN via cable with and without a convertor, or direct from the satellite (i.e. actual rather than potential reception facilities), the extent to which those households utilise KN programmes, and their reactions to the KN service in general. This will require extremely careful sampling procedures, and will be a relatively expensive exercise, involving several thousand households across the province. Data collected from the survey should be stored on the OLI computer, and collected in such a way that it is compatible with the OLI student data-base. This survey would not need to be repeated every year, so should be treated as a project.

13.2 The mailing list already held by KN, primarily for marketing purposes, could also be added to the market survey information, although it will be important that the two sets of information do not become confused, and work will need to be done to ensure that the marketing list is as compatible as possible with the OLA data-base.

13.3 One benefit from the survey in 13.1 is that it could provide a good sampling base for enquiries about specific programmes, since from the initial (large) sample of people identified as able to receive KN programmes, smaller samples representative of the general population can be drawn for specific programming enquiries, and rotated to avoid over-use of certain households.

13.4 KN ought to have a greater sum for project research than the other programme areas, and make greater use of external research organisations. (The recommended minimum figure is $100,000).

13.5 Professional development time should be used to allow KN staff to direct and participate in externally commissioned projects.

13.6 It is recommended that research be directed at key programming policy decisions over the next few years. For instance, research might be conducted into:

(a) the effectiveness of live, inter-active programmes

(b) appropriate production styles for different target audiences (e.g. general education, telecourses, teleseries) in terms of perceived audience need

(c) the impact of video-recorders on the use of KN programming (access to recorders by different target audiences, implications for production style, support materials)

(d) the need for media education (how to 'read' television)

(e) ways to increase student learning from television (production style, use of recorders, signposting) related to different programming areas

(f) better ways to identify and select appropriate programming (relative merits of market research, advisory committees, how to involve wider range of agencies, etc.)

(g) better ways to liaise with wider public (a computerised directory of agencies, use of subscribers/mailing lists, newspaper, open-access video-boxes, for public to record opinions about needed programming and support services)

(g) analysis of programming: sources, relevance to BC, spread of target groups, market research into demand for areas not covered, provision of programming for the disadvantaged

(h) reactions to imported programming

Some of these studies could be integrated. Research methods would include postal questionnaires, telephone interviews, group discussions and individual, person-to-person interviews, using small but carefully selected samples of actual programme viewers. Some of these projects would be appropriate for joint research with Universities in the province.

13.7 To ensure that research is directed to meeting the needs of KN, and is properly co-ordinated and integrated with programming and development work, it is recommended that a small committee of KN staff, plus the Director, Research and Evaluation Methods, be established to define research needs, allocate funds, commission studies, and disseminate and act on the results.

14.1 (a) rough estimates should be made of person-days required to produce a course, across the various job categories (this is necessary in any case for proper project management)

(b) each individual in the course design and production area should negotiate with their immediate manager a rough estimate of how time will be spread over various work activities; these estimates should take account of all the demands on people's work-times (course maintenance, administrative activities, evaluation, professional development, etc.)

(c) commitment to new course production would take account of person resources available, and this would influence project planning; once committed, courses should be produced according to the agreed schedule, and staff, having agreed the time necessary, would work to those norms.

14.2 It is recommended that a Director, Evaluation and Research Methods, should be appointed, with the following responsibilities:

(a) advice to CEO and Executive Council on evaluation and research matters, including the feasibility and quality of research proposals and evaluation procedures within OLI/KN.

(b) the design and contracting of evaluation and research activities commissioned by the Executive Council

(c) organisation and analysis of statistical data about students and courses for the Executive Council

(d) advice to staff in OLI/KN and other B.C. open learning agencies on evaluation and research methodology, including advice on the design and conduct of research and evaluation activities, appropriate external research agencies, sources of funding, report writing, and dissemination

(e) the co-ordination of evaluation and research activities, to avoid duplication and to ensure widespread dissemination of research and evaluation findings within OLI/KN

(f) liaison with other open learning agencies involved with research and evaluation, with a special responsibility to disseminate research findings from other institutions of relevance to OLI/KN.

14.3 The appointment of a Project Officer (Evaluation and Research), to assist OLI/KN staff in using the data-base, to draw samples, and to process and analyse research data; the project officer would be responsible to the Director, Evaluation and Research Methods

14.4 Three options are offered regarding the organisational location of the Director, Evaluation and Research Methods, and the Project Officer:

i Directly reporting to the CEO, in the same way as other Authority-wide services, like the International Office

ii Location within the Administration component

iii Creation of a new component (Authority Services) which would combine all the Authority-wide services, including evaluation and research assistance

My own preference is for (i) in the short-term, but (iii) in the long term. I am not happy about (ii), because the Director should be independent of operational units.

14.5 (a) The Executive Council should set priorities for research or special evaluation projects requiring more than $50,000 in resources (manpower and/or cash, including a cost for time of existing staff assigned to work on the research project);

(b) Vice-Principles should be free to approve evaluation and research activities within their own area costing less than $50,000 per project, provided they have the resources within their areas, and have checked with the Director, Evaluation and Research Methods, regarding the feasibility and quality of the proposals and lack of duplication with activities in other areas.

14.6 Standard evaluations should not require extra resource. The procedure recommended is not

labour-intensive and should reduce the overall time spent on changes to course material.

14.7 If the recommendation regarding professional development time is accepted (recommendation 5), this will provide a substantial pool for approved development, special evaluation and research projects, although development, evaluation and research will not be the only activities carried out in professional development time. There could though be perhaps a drop in course production of around 5-8% per year (maximum) to accommodate this recommendation, even allowing for some efficiency savings from the standard evaluation procedure and better time management, unless extra resources are found.

14.8 This leaves three options with regard to the recommendation regarding professional development time:

(a) don't do it

(b) see it as a replacement activity for some other activities

(c) cost it as an extra resource requirement

14.9 Revised procedures for making the data-base more accessible and purchase of appropriate software should be considered part of Information Systems normal development budget. If though other demands of equally high priority mean that these revisions would be delayed, extra resources (probably not in excess of $60,000), should be found from the 1987/88 budget.

14.10 In addition to a slight reduction in course production activities, these recommendations require the following extra resources per annum:

Salary and overheads for Director, Evaluation and Research Methods	$60,000 (?)
Salary and overheads for Project Officer (Evaluation and Research)	$40,000 (?)

Cash for special evaluation and research projects:

Executive Council	$100,000
University	$50,000
Open College	$50,000
Administration	$50,000
Knowledge Network	$100,000
Total	$450,000

Expenditure of £450,000 should enable all the proposals and projects suggested to be implemented.

Impl;ementation

15. The following sequence and priorities for implementation of the proposals are recommended

1. Alteration to the data-base structure. If not implemented, most of the other proposals cannot be implemented, either.

2. Appointment of Director and Project Officer Essential for advice on standard evaluation, project research, and supporting evaluation activities

3. Tutor evaluation Could begin immediately, if senior tutors agree

These three proposals could be initiated immediately

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4. Standard evaluation procedure put into place Dependent on establishment of project management and data-base changes

5. Project research Some development projects could not wait, but major research projects should await appointment of Director and establishment of data-base requirements

THE OPEN LEARNING INSTITUTE

AND

KNOWLEDGE NETWORK

A PROPOSED PROGRAMME

FOR

INSTITUTIONAL RESEARCH AND EVALUATION

MAIN REPORT

(FINAL DRAFT)

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CONTENTS

		page no.
1.	Introduction	4
2.	Terms of reference	4
3.	Method of conducting consultancy	5
4.	Do OLI and KN need an institutional research and evaluation programme?	7
5.	What exists already?	10
6.	Some comments on research methodology	11
7.	Creating a framework for research and evaluation	12
8.	Using the OLI data-base for research and evaluation purposes	20
9.	Course evaluation	25
10.	Project research	31
11.	Tutors, advisory services, and validation of student assessment procedures	39
12.	Knowledge Network	43
13.	Organising and funding research and evaluation	46

List of Appendices

Appendix A	Terms of reference
Appendix B	Staff interviewed
Appendix C	Bibliography of papers and articles by OLI/KN staff
Appendix D	Data-base exercise: what happens to first-time registrants who drop out of their first course?
Appendix E	List of seminars given on research and evaluation
Appendix F	Example of course evaluation print-out at end of first semester
Appendix G	Annual course statistics, by each course
Appendix H	Annual statistical summary of course statistics

1. Introduction

Both the Open Learning Institute and Knowledge Network are relatively young, innovative organisations. Also, compared to open learning organisations in many other countries, OLI and KN are compact, each with small numbers of staff but large mandates. In the early days of OLI and KN, all efforts were understandably concentrated on course and programme production, in order to provide as quickly as possible a wide range of programmes and courses. The production and delivery of materials left little time for systematic research or evaluation. However, both OLI and KN are now relatively well established, and there has been a growing recognition that the two organisations might benefit from a planned approach to evaluation and research.

I was therefore approached in May, 1986 by Ian Mugridge, then Academic Dean at OLI, and asked if I would be available to assess the research and evaluation needs of OLI and KN, and to advise on what steps might be taken to establish an active research and evaluation programme. Consequently, a contract for three months' consultancy was issued, to commence in January, 1987.

2. Terms of reference

The full terms of reference are attached as Appendix A. The original suggestion was that the consultancy should be concerned with proposals for both research and development. However, between the time of the first approach and the commencement of the consultancy, a major re-organisation had taken place, including the appointment of a new Chief Executive. By the time I arrived, plans for development activities were already under way. It was therefore agreed to restrict the present consultancy to institutional research and evaluation.

It was also recognised that the consultancy should take into consideration not just the requirements for research, training and professional development within OLI and KN, but also the possibility of an Agency-wide service. Partly for this reason, it was intended that I would work with a committee to be formed, under the chairmanship of the Principal of North Island College, to look at research, training and professional development in open learning in British Columbia. This committee was not formed however in time for me to work with it, although I was able to liaise with an initiative from the University of British Columbia, concerned with the possible creation of a collaborative centre for research and education in open learning within British Columbia.

Lastly, it was agreed to commit up to 20% of my time during the consultancy to other activities, at

the request of individual departments.

3. Method of conducting consultancy

Step 1: Identifying Needs

Having agreed the terms of reference, the first step was to interview staff in both institutions, usually individually, starting as far as possible with senior management. Using a semi-structured interview, the aim was to discover the following:

a. what on-going or routine institutional research and evaluation activities are being, or have been, carried out, and how satisfactory these have been

b. what individual initiatives had been taken to conduct evaluative studies as part of professional development

c. what particular research projects had been conducted

d. what research information staff still required

e. what, if anything, prevented staff from conducting research and evaluation enquiries at the moment

f. what priority they would give to research and evaluation activities, even if it meant reducing other activities to accommodate them

g. what expertise staff had in the research/evaluation field

h. what views staff had on the funding and organisation of research and evaluation activities

i. any other comments they wished to add about research and evaluation activities

In addition to individual interviews, meetings were also held with groups of staff, as follows:

course designers in the University programme

course designers in the Open College programme

tutors in the University programme

tutors in the CTV programme

A list of staff interviewed is attached as Appendix B.

A library search was also conducted to identify papers or articles by staff of OLI and KN, and papers held in the library by external writers regarding the OLI (a full bibliography is attached as Appendix C).

In order to understand the nature of the student data-base, its structure, and its suitability for research and evaluation activities, an exercise was undertaken, with the help of Jocelyn Calvert, Course Co-ordinator, University Programme, and Heather Drugge, Publications and Statistics Clerk, to abstract information to determine what happened to students who dropped out of their first University Programme course (i.e. to find out whether they re-registered for another course, etc.). The results of this exercise are attached as Appendix D.

Interviews were also held with several staff from the Information Systems department, to identify what steps were necessary and feasible to make it easier to use the data-base for research and evaluation activities, and discussions were held with other staff to try and identify a strategy for accessing and analysing information on the data-base.

I also attended two meetings called by the University of British Columbia to discuss the establishment of an Institute for Research and Education in Open Learning, and the ideas and approach agreed in these discussions have been taken into account in this report.

Also, during this phase, a work plan and schedule, and the structure of this report, were detailed and agreed with the President-Designate of OLA.

Step 2: Formulating Proposals

Following this intensive period of interviewing, a number of proposals for the organisation and implementation of research and evaluation activities were formulated. These were put forward to

those previously interviewed for consideration and comment. Occasionally, this was followed up with a second interview.

Secondly, I organised and conducted a series of seminars on research and evaluation (see Appendix E for a list of topics). One of the purposes was to help staff understand better institutional research and evaluation activities and the strengths and limitations of evaluative research. However, an equally important objective of the seminars was to get reactions to my initial proposals.

As a result of these discussions, some proposals were modified or dropped, and other new proposals emerged. Finally, this report and a draft executive summary have been prepared and circulated to the five Executive Council members for their consideration.

4. Do OLI and KN need an institutional research and evaluation programme?

What is institutional research?

First of all, to avoid misunderstanding, it may help to define briefly what I mean by evaluation, institutional research, and development.

Evaluation is an everyday activity that goes on all the time. Every time we say we like a programme or course, we are making an evaluative judgement. Such evaluation though can be on purely subjective grounds, without any evidence of effectiveness.

Institutional research is an attempt to provide more systematic information on the performance of an institution. It is an attempt to collect evidence of effectiveness, to identify problem areas, and, where possible, to suggest alterations that are likely to lead to improvement. This kind of research then can be one input to evaluative judgements. This consultancy is primarily concerned with the need for, and the means to provide, institutional research for evaluation purposes.

Development is any new activity or new way of doing something. It may or may not be systematically evaluated. Research may or may not suggest new developments. Thus development can take place without research, although if possible, research and development should be linked.

Relationship between institutional research, policy and decision-making

For institutional research to be useful, it needs to be linked to policy and decision-making. There is

no point in carrying out research which cannot be acted on. For instance, there is little point in discovering that most tutors have been born outside British Columbia, if that is considered irrelevant to hiring staff. Sometimes, research not originally directed at policy or decision-making may turn out to be useful, but given scarce resources, such a random approach to institutional research is difficult to justify.

Secondly, institutional research on its own should not dictate policy. For instance, research may indicate that recent immigrants have much higher drop-out rates than other students. However, the policy that follows from such research is likely to be influenced by many other factors, as well as the research results.

Lastly, research may help formulate or influence policy, but cannot substitute for it. In some institutions difficult decisions have been postponed by calling for more research, when more research was not the answer, but choosing between two unwelcome alternatives.

Nevertheless, well conducted and timely research can be a valuable, sometimes essential, contribution towards skilled decision-making, thus improving considerably the effectiveness of a distance teaching system. I have therefore looked at research in terms of policy and decision-making, and not in terms of an interesting but not immediately applicable academic exercise.

How necessary is IR at OLI and KN?

By definition, in a distance education system, students are not in direct contact with course designers and managers of distance education institutions. There is a real danger therefore that the institution unwittingly adopts policies and procedures which are not effective, or which could be substantially improved. The very nature of distance education requires a conscious effort to bridge the gap between students and staff. Institutional research is one means by which this gap between students and staff can be bridged.

Another reason is to do with the technological nature of distance education. It is at heart an industrial system of manufacturing, delivering and 'servicing' a product, in this case learning materials. The principle of feedback is considered essential for any technological system to run efficiently. Institutional research and systematic evaluation are means of providing this feedback. In other words, if open and distance learning in British Columbia is to be a self-improving system, institutional research is essential.

These are general arguments which would apply to any open and distance learning system. With respect to the Open Learning Institute and Knowledge Network, almost everyone I interviewed expressed the view that systematic evaluation and research had not by and large been conducted, and were desperately needed. The view was frequently expressed that while in the early years it had been essential to 'get the show on the road', the time had now come to take a much more critical look at policies and procedures that had often developed in an unplanned and ad hoc manner.

Many individuals felt that they were working in a vacuum; others expressed considerable unease at the effectiveness of certain practices, but had no hard evidence to support that unease; others felt that they did not really know enough about the students to be confident of designing effective materials. It is worth noting that some tutors complained that while they had fed back information about defective course material, the information had not been acted upon, because of lack of resources. Nearly all those interviewed were enthusiastic about the possibility of introducing research and evaluation activities, on a planned and professional basis.

Both OLI and KN are in fact in urgent need of research and evaluation activities. Both institutions would be hard pressed to demonstrate objectively their efficiency and effectiveness, because of lack of suitable information. Methods of operation have become crystallised without any evidence of their effectiveness, or considered assessment of alternatives. The lack of research and systematic evaluation procedures leaves both institutions politically vulnerable, and inhibits the development of both institutions as leaders in open learning and distance education. However, such research must be related to effective policy and decision-making, and the issue of adequate resources to act on evaluation activities also needs to be addressed.

Recommendation

1. At least over the next three years, research and evaluation activities should receive as high a priority as course production and programming. This will require either finding additional resources, or a moderate but noticeable re-direction of existing resources to research and evaluation activities. (Resource implications are detailed later - see Section 13.)

Research and systematic evaluation though should not be just short-term activities. They need to be built into the system. This requires closely examining management structures and practices within the two organisations, analysing ways in which research and evaluation activities can be fitted into the main decision-making processes, and identifying where management procedures need to be

adapted to encourage this.

5. What exists already?

The short answer is: not a lot, but still more than most staff are aware of.

Open Learning Institute

There already exists a comprehensive and effective system of course evaluation in both the Dental and the Nursing Programmes in the Open College. It is interesting to note that systematic evaluation is a requirement of these two programmes for them to receive accreditation. These evaluations use very little in the way of resources, being conducted entirely by the respective course co-ordinators. These two programmes therefore provide a model of what other courses could do, although both co-ordinators complain of lack of resources for revising materials and for conducting more thorough analyses of the data collected.

Also, a semester-by-semester print-out is supplied by Registry of course enrolments, withdrawals, grade-distributions, and examination performance, and of tutor success rates and performance. This information however is not systematised or summarised, and many course co-ordinators and designers complained of the difficulty in using this information in the form in which it is provided. A common complaint was that it was produced often too late to be of much practical use. Part of the problem is that it takes a great deal of computer central processing time to run the programme and print-out.

Occasionally, special research studies have been conducted. Appendix C provides quite a large list of papers on the work of the Open Learning Institute and Knowledge Network, most of which are located in the Open Learning Institute library. I am reasonably certain that while this contains most of the papers available, it does not include them all. More could be done to disseminate what already exists.

Recommendation

2. Staff who write papers should be encouraged to lodge a copy, including a short abstract, with the Librarian (who compiled the list in Appendix C.) This list should be kept up to date, and new additions to the list circulated (with abstracts) twice a year to all OLI and KN staff.

There are several reasons why papers and publications are important. The first is to disseminate within the institution the results of research and evaluation studies, with the intention of influencing policy. However, the relatively few research studies that have been conducted, while of interest in their own right, and with often important policy implications, were rarely tightly linked in with the decision-making processes, and consequently have had little impact. (It is worth noting that there is already a report on institutional research and development prepared by a colleague of mine from the British Open University - Woodley, 1983).

Another reason for publication is for professional development. The need to record, analyse and evaluate practices usually results in a more realistic assessment of the strengths and weaknesses of current procedures and policies, and may well stimulate changes in practice.

A third reason for publication is because both OLI and KN are primarily innovative educational institutions, and therefore have a responsibility to disseminate knowledge about their practices and their effectiveness to the educational world at large. Publication is one of the more important ways through which the reputation of an open learning institution is judged. The great majority of the papers in Appendix C are descriptive of OLI and KN procedures and systems, rather than research or evaluation studies, or even critical analyses. There are less than 30 published articles, which is very little over a period of seven years for two such innovative institutions, although Mugridge and Kaufman's Distance Education in Canada is a major publication in the area. It is also worth noting that only six external studies are located in the OLI library, and only two of these were student assignments or theses. There is clearly a great opportunity for post-graduate student studies related to open learning that could also be useful to OLI and KN.

Over all, then, OLI's and KN's publication record is not impressive, and certainly does not do justice to the innovative work being carried out by the two institutions. This is partly because very few high quality evaluative research studies have been conducted at OLI and KN.

6. Some comments on research methodology

It is customary to think of research as a highly scientific, quantitative and precise exercise, based on carefully controlled experiments, testing hypotheses. This is one method of research which has proved its value in the physical sciences. Certainly, a good deal of institutional research - on enrolments, drop-outs, demographics of students, sampling, for instance - is quantitative, and requires good statistical techniques.

However, institutional research is worthless if the results arrive too late, are too narrow to help decision-making, are unintelligible to decision makers, or are hedged around with so many qualifications that no course of action seems better than any other. Institutional research is always a compromise between the ideals of empirical, scientific research on the one hand and the demands of decision-making and the constraints of time and money on the other. Very often, institutional research is more useful if it is quick and dirty, rather than clean and late. Better to be 75% certain, and act on the information, than 90% certain after the decision has been made.

More importantly, for an evaluation to be useful, it is often necessary to understand the context in which decisions have to be made, and the underlying reasons why decisions get made. This requires a much more qualitative, interpretative and usually participative approach to research, using careful observation and interviews, and drawing on personal experience, in an attempt to understand what is happening. This is particularly important for development projects, where many factors may affect the success or otherwise of an innovation. This kind of qualitative, evaluative research requires great skill, if it is not to degenerate into entirely subjective and unverifiable personal opinions, but when well done, it is often the most useful kind of institutional research.

7. Creating a framework for research and evaluation

Why has there been so little research and evaluation?

One important principle was established when the terms of reference were agreed. It would not be appropriate to set up a large, separate department or institute of institutional research within either organisation. It was agreed that research, evaluation and development should be the responsibility of every department. The creation of a large, separate research department was likely to lead to a separation of research from decision-making. In any case, given the size of the two organisations, the commitment of substantial internal resources for research and evaluation would not be feasible.

However, if it is agreed that research and evaluation is the responsibility of every department, why has it not happened in the past? What is currently stopping staff from doing it now?

Most of the staff had not until interviewed thought that it was part of their job to conduct institutional research activities. They assumed that these were not part of course production, and consequently 'the management' would not approve, indeed would actively disapprove, of such activities. (This was quite surprising, as nearly all senior managers interviewed said that they

thought it was good that staff should evaluate their activities, and said they would like to encourage people who wanted to do this.) Many staff also said that even if it was part of their job role, there was not sufficient time to conduct such activities, given current production and maintenance loads. A lot of staff said that they would like to conduct research and evaluation activities, but as well as lack of time, they did not have the expertise to do it.

Quite clearly, an environment has grown up over the years in both institutions (more so in OLI than KN), in which research and evaluation activities have been discouraged. That may no longer be the management policy, especially since the recent re-organisation, but if such a change of policy exists, it needs to be communicated. However, telling staff they can now do research and evaluation is not enough. It is necessary to provide a supportive framework or environment which both encourages and at the same time controls and directs the development of research and evaluation activities.

Staff are also unsure as to what steps need to be taken to evaluate systematically their activities. Some kind of guidance or structure is therefore necessary.

The main purpose of research and evaluation should not be summative (i.e. to be used for promotion, external rewards or punishment) but formative (i.e. for people to be able to do their jobs better, through taking responsibility themselves for changes in practice). The principle therefore is self-evaluation, with help and guidance from senior management. The guidance should take the form of providing a structure, or series of events, which prompt self-evaluation activities.

Recommendation

3. Each programme area or department should be responsible for evaluating its own performance; consequently, each programme area and department should be responsible for:

   (a) identifying and reviewing its own performance criteria, and having these accepted by the next senior level of management;

   (b) identifying the information it needs to collect on a regular basis in order to evaluate its own performance, and collecting and analysing that information

   (c) identifying and implementing special research projects which aim to enhance the performance of the department

(d) formally reviewing, at least once a year, its own performance, in the form of a report to the next senior level of management; it is at this point that next year's performance criteria should also be considered and agreed. Research and evaluation data would be one of the sources of information on which this review would be based.

(e) department and programme area heads should provide a short report as a result of this review to the CEO, and these reports should be discussed at the Executive Council. The CEO should write annually a summary report on performance for the Board meeting (in May?), using both these reports and statistical information on course enrolments, completion rates, and trends (see recommendations regarding the data-base for more details).

Project management and professional development

If research and evaluation (not to mention development) are to take place, some way has to be found to free up time from day-to-day operational activities. There are two ways in which this can be done.

The first is through the extension of project management to research activities. Thus a research study can be treated in exactly the same way as the new project management procedures for a course, with an approval procedure, a plan for resources, and staff time allocated to the project.

The second is through an allocation to staff of a limited but fixed amount of professional development time, during which research and evaluation activities might be carried out. Of all the proposals floated in the first round of discussions, this has probably received the most attention, and has been the most misunderstood, so it is necessary to explain both the reasons why professional development is so important, and exactly what it covers.

Good research and development needs to be encouraged from the "bottom-up", i.e. from people working close to problem areas, who know the problems well, who have knowledge of new developments in their field outside of their own institution. and who have ideas about how to get the information needed, or provide solutions to problems. This means encouraging staff to take the initiative in proposing and conducting evaluation, research and development activities.

The importance of this cannot be too strongly stressed if OLI and KN are to become centres of excellence, and the OLA a world-leading agency in open and distance learning. I was disturbed by the restricted job role otherwise dedicated and committed staff ascribed to themselves. Many complained that in the past, any attempt to innovate, research or evaluate had been slapped down and discouraged by 'the management'. It was claimed that good staff who had wanted to develop their professional skills through private study had been discouraged and left. Whether or not this is true is not important; what matters is that many staff believe it to be true. Many staff feel extremely frustrated and under-utilised as a result.

The consequence has been what I can only describe as a civil-service attitude to work. Initiative is discouraged, and people become driven by the production line. It seems therefore that the OLA Board needs to address a major policy decision. Are the two organisations to become leading innovative institutions driven by internally determined criteria of high educational quality, research and development, or are they to be administrative arms of the provincial civil service, driven by rules, regulations and external criteria? If the former, the staff must have conditions of service which encourage research and development, and the most important of these is the opportunity for professional development.

It needs to be understood that the argument for professional development rests not on the benefits to the individual (although there is no denying that it will bring such benefits), but to the institution. Both OLI and KN are 'high-tech' institutions. Any institution working in high technology areas will die without professional development, as experience in the commercial sector indicates. 15% of IBM's turnover goes towards professional training and development. The Director of IBM Education, Europe, who has a budget of $1 billion a year for professional development within the company, claims: "We are big because we train; we don't train because we're big." Indeed, there is an irony that an institution such as OLI, which is trying to provide professional development and training opportunities for students working in other organisations, does not have a planned professional development programme for its own staff.

Professional development is too important to be left to ad hoc arrangements. It needs to be planned for, and organised in such a way that regular production activities are either covered or reduced. One objection to specifying a definite amount of professional development time was that there is no cover for certain staff. It is not good management policy though to make anyone totally indispensable. People become sick, leave or die on the job. Planned professional development leads to better back-up and cover, because people have to be trained to take over other jobs while covering for people away for professional development purposes.

If professional development is not planned, the pressure of day-to-day operations will override the necessity for training and development. The good intentions of managers - and dedicated staff themselves - to allow for professional development quickly disappear under operational conditions, particularly when organisations are continually being asked to do more with less resource. For this reason, there needs to be a strong countervailing pressure on managers to plan for professional development. That countervailing pressure needs to come from the staff themselves. Consequently, a minimum amount of time for professional development needs to be negotiated and agreed with staff, so that other activities have to be planned around the time remaining. Without professional development time being a right for the staff (albeit one which needs to be exercised flexibly), professional development is unlikely to happen.

This is not quite such a radical suggestion as some have believed. There is already some professional development going on (attendance at conferences, overseas consultancy, visits to other institutions) but it is almost unofficial, restricted mainly to senior staff, and certainly not planned or seen as a right. Institutional research would be only one, relatively minor, professional development activity, for most people. However, time for professional development will provide staff with the opportunity to follow through research issues of relevance to the institutions, but with the initiative coming from the staff themselves. It will legitimise, for instance, the activities of several committed staff who currently feel guilty if they spend an afternoon trying to find out why so many students are not completing a certain course, instead of getting on with new course production.

Lastly, the suggestion that professional development time should be a right for staff does not mean that staff can do what they like with that time. The activities have to be negotiated with managers, and they must occur at times that do not disrupt unnecessarily other operational activities. Within a period of 12 months, though, a member of staff should be able to claim the full amount of negotiated professional development time.

A final objection to this proposal is that it will be seen as an extra activity, will have to be costed as such, and will thus fall foul of the provincial government's policy of restraint. This is not necessarily so. There are really three alternatives.

The first is not to accept the proposal, with all the risks that that entails.

The second is to reduce proportionately production activities. This would not be disastrous, because if the reduction in time is converted directly into reduction in the number of courses, the

reduction would still be relatively small (a maximum of 10%). However, it is unlikely that even in this extreme case, efficiency would suffer. A reduction in incompletion rates by 10% as a result of research and professional development would maintain the throughput of qualified students at the same rate as at present, even with fewer courses. In practice, increased course production efficiency (due to greater knowledge and commitment) is likely to more than compensate for a reduction in time spent on course production, enabling current production levels to be maintained.

The third alternative is to cost professional development as an extra activity, and to ask for more resources. This does not seem to me to be a sensible policy. The whole aim of professional development is to make the system more effective, not more expensive. Nor does it look good to admit publicly that there has been no professional development in the two institutions over the last eight years. What is really being suggested is a re-organisation and better planning of activities.

Recommendations

4. The OLA Board needs to disseminate to staff of both institutions the fundamental change in stance regarding their role following the adoption of the Mission and Goals statement; the implications for working style and professional development need to be explained and understood by staff at all levels, but especially by senior managers, who need to take positive steps to encourage professional development. Without this, the climate necessary for good quality research and evaluation (and, more importantly, for achieving the broader Agency goals) will not exist.

5. Every member of staff should be encouraged to have a planned set of professional development activities over a year's period. These activities should be of benefit both to the individual and the Agency. It should be the responsibility of each manager to negotiate professional development activities with staff in their department. Each person should be entitled to the equivalent of half a day per week, or 25 days per year, minimum, for approved professional development activities, to include personal research activities, attendance at conferences, training courses, visits or exchanges with other relevant institutions, overseas consultancies, approved courses of study, work on new developments, and other non-operational activities which lead to increased competence in the post. Thus the 25 days will include a number of activities already being carried out. This general principle should apply to <u>all</u> levels and grades of staff, although the amount of time for professional development activities may vary across grades.

I have suggested a particular mechanism for ensuring that professional development takes place: that staff should have a right to negotiate a minimum of 25 days professional development time. There are other, perhaps better mechanisms, which might be introduced by management to provide professional development. I wish to stress that the issue here is not the particular mechanism, but that:

(a) relevant professional development does take place at all levels within the organisations

(b) whatever mechanism is adopted, it should encourage the generation of research and development activities by all levels of staff

(c) it is a management responsibility to ensure that professional development happens at all levels of staffing.

The need to improve contact between the students and central staff

All distance education systems suffer from the gap between students, on the one hand, and central staff, both managers and course designers, on the other. OLI, and to a lesser extent KN, do provide excellent opportunities for contact between tutors and central staff, through workshops and one-day conferences. These are extremely important, because tutors are an invaluable source of feedback. However, there are considerable advantages in increasing direct contact also between students and central staff, despite the genuine difficulties, because student perceptions are different.

Part of the function of research is to collect feedback from students. This can be done through questionnaires, telephone interviews and a number of other techniques. However, they all have their limitations. In particular, it is extremely difficult to obtain well-considered, deeply insightful comments from students using these more formal research techniques, and in particular, it is difficult to deal with arguments, negotiations or discussion of issues through formal research methods. Student criticisms also tend to lose their force when aggregated or presented indirectly.

It is important therefore not to overlook more direct methods of student contact and involvement with the centre. This is always going to be difficult, because students are not only often a long distance away from the centre, but they have busy lives, working and studying, and many have no wish or interest to become involved in the working of the two institutions. The few that do become involved then are not necessarily representative of the whole student body.

However, that does not mean that one should give up trying. There are students who are interested and willing to participate directly. For instance, several OLI staff are also (or have been) students. Over 30% of the students do live in the Vancouver area, and some will have the time and interest to get involved in the work of the two institutions.

Recommendations

6. There are several ways in which central staff can be brought into meaningful and useful contact with students and tutors:

   (a) appointment of a student and a tutor representative to the OLA Board

   (b) the appointment of a paid student editor for the OLA newspaper, with a remit to increase the number of student subscribers and contributors

   (c) appointment of a student or tutor to selected project management teams

   (d) establishment of a students' association, with elected student representatives; OLA to provide audio and/or computer conferencing, including the use of a students' bulletin board for elected representatives

   (e) provision of two or three self-operated video boxes, which record viewer's comments, and which can be broadcast back to the audience at a later date, to provide direct feedback on KN programmes

   (f) occasional weekend student/tutor get-together days, within programme areas, to discuss general student issues (study techniques, course choice), etc., on an optional, voluntary basis.

The need for both regular and special research and evaluation activities

Because of limited resources, not just for research but also for re-design and re-production, it is not feasible to research every course in depth. There is no point in collecting evaluation data on a course if it cannot be acted on. Furthermore, there are important areas which support course production and delivery which may also need special studies. It therefore becomes essential to

concentrate evaluation activities in those areas where they are most needed. On the other hand, every course should be assessed to some extent, since it would be unsatisfactory to run a course which is inadequate. Therefore two quite different kinds of research and evaluation activity are necessary: a minimal but adequate process of course evaluation for all courses; and a limited number of special studies, in the form of research projects, which may be directed at a wide range of possible issues, but would also include special in-depth evaluations of selected problem courses.

Recommendation

7. Two kinds of research and evaluation activities for the Authority are proposed:

   (a) regular activities (such as course evaluation) which are built into project management;

   (b) special projects: individual studies, commissioned or approved either within KN or OLI, or in conjuction with other agencies

   In either case, procedures are proposed to ensure that each type of activity is approved, properly resourced and professionally conducted (see sections 9 and 10).

8. Using the OLI data-base for research and evaluation purposes

OLI has an excellent store of information about students, tutors and courses. This information is invaluable for research and evaluation purposes. Many useful studies can be conducted (for instance, on factors associated with non-completion, the study routes chosen by students) without the need for collecting additional information.

However, a major complaint from staff is that the data-base, as currently structured, is useless for research or evaluation purposes. The problem is that the data-base is not organised at the moment in such a way that basic information about courses or students required for evaluation purposes can be readily abstracted. Much of the information required can be obtained through using a software package called Datatrieve, but it requires extremely laborious procedures and a great deal of knowledge, both of the data-base and the Datatrieve programmes. Other information is in fact impossible to abstract in the form necessary. This limits information about basic performance indicators to a very small number of people, all of whom have other, more pressing operational priorities. Unless this bottleneck is removed, evaluation of courses on a systematic and reliable

basis is not possible.

As an example, I examined what was needed to conduct an enquiry from Jocelyn Calvert regarding drop-outs (see Appendix D). After discussion with Heather Drugge, Student Services, who frequently uses Datatrieve, it became apparent that it would take 40 hours of Heather's time to get this information. Despite the fact that I am an experienced researcher, and familiar with data-bases, it would have taken me considerably longer. This is not practical, yet the enquiry is a reasonable one, and the information required for the enquiry is actually in the data-base.

The problem is caused because individual student files are not complete. There are three file systems. The master student file is what is entered once only from the initial registration form. Then there is a master course file for each course, which lists details of the course, but not student information. A third file is then created (the student course file) for an individual course, which takes information from the master course file, 'reads' the student files, then identifies which course the student is registering for, then transfers the student number only to the student course file. This leaves important demographic information in the student master file. To get any other information about students on any course requires special programmes to be written, or the use of Datatrieve. In other words, to match student performance with other student information, a special record has to be created for each student each time.

What is required is a programme which automatically merges new student data with existing student data, in a consistent way for all students. Thus after a student registers for a course, not only should course performance information (e.g. grades) be added to the master student course file, it should also automatically be added to the master student file. Similarly, when a student registers for a second (or subsequent) course, all the student information regarding the second course should be added to the initial master student file. All fields on the file should be keyed fields. Thus one is creating an easily accessible, dynamic, continually up-dated and above all complete record for each student. Once such a file is created for all students, this becomes the master data-base from which all subsequent analyses can be done for evaluation and research purposes. In other words, the computer will search through the master student file according to parameters set by the enquirer - for instance "Select all students on courses with ADMN codes for all sessions, who previously studied an OLA pre-university course". This would then provide the sample on which further analyses can be done. Using this system, it should also be feasible to abstract appropriate sample information for local processing on micros, thus reducing central processing time.

A4

While this is a requirement for evaluation and research purposes, it will also become increasingly necessary as more and more students complete degrees, or seek credit transfer, since a full student record will be required. Also, some countries now require, under public data protection acts, that all stored information about an individual should be available to that individual on request. My proposal would make this a much simpler process.

Once this basic master student file is created, standard statistical analysis packets (such as SPSS) can be bought, which will enable data to be easily abstracted in the form required by anyone authorised to do so, whether or not they have programming skills.

Information Systems will need to do an initiation study to see what resources are required to provide a basic, dynamic master student file, and what packages would be most appropriate for abstracting and analysing data, including standard statistical tests.

It is important to point out that re-structuring the data-base is essential for project research. The present system makes it impractical to sample students, send questionnaires, or conduct analyses of student demographics, on any regular or systematic basis.

The proposals to be recommended would also have value on a wider agency basis. A common identifier for all B.C. students in post-secondary education is being used. The data-base changes would enable students to be traced across several different institutions, and where appropriate, additional data from their time at other institutions can be added to the student master file.

These suggestions have been discussed with Information Systems staff, who agree the proposals are feasible. It is a question of setting priorities for implementing these proposals.

Recommendation

8.1 Improvements to the data-base along the lines proposed should receive the highest priority in the Information Systems development programme.

Detailed proposals follow on what needs to be done, but it is also important that general principles are established regarding the use of the data-base for research and evaluation purposes, so that information accessed is directly relevant to, and used for, decision-making, and to ensure that time of both people and the central processing unit is not wasted.

Recommendations

8.2 Data from the data base should be accessed for a specific reason, related to policy or decision-making; this means there should be specific times when the information is needed, and a specific person or set of persons who would be committed to using this information.

8.3 Routine or regular provision of information should therefore be kept to a minimum, and related to particular regular decisions or policy requirements.

8.4 Self-access should be the main way in which the data-base should be used. In other words, instructional designers, middle managers, and senior managers (or their assistants) need to be able to get information from the data-base relatively easily. Those people who need information should not only be responsible for defining their needs, but should wherever possible access it themselves, at times when they need it, and without having to learn specialist programming skills; advice though should be available on the best means to obtain the information required. Appendix D outlines some of the analyses which it ought to be possible to access easily and conveniently.

8.5 It is important to define the research and evaluation needs of different groups of people and to develop procedures of data abstraction which meets those needs. The following needs have been identified:

i Course maintenance. It will be recommended (9.5) that each course should be reviewed as soon as possible after the first semester presentation of that course. Thus for each new course, the print-out in Appendix F should be commissioned by whoever is responsible for course maintenance. (A programme for this already exists). If any further information is needed from the data-base, this should be acquired by the maintenance person by directly accessing the data-base.

ii Middle management (directors, course co-ordinators, possibly vice-presidents). They need an overall picture of the progress of courses in their areas. It is recommended that this is necessary only once a year, rather than semester-by-semester, as at present. Once a year, middle management should get the print-out outlined in Appendix G, covering a full year period, i.e. for all students registered each semester within a specified year-period. All course maintenance people should also automatically get a copy, so they can see how their individual courses compare

with others.

iii Executive Council and the Board The Executive and the Board need an annual picture both as a form of accountability, and to help inform discussions regarding future policy for the Institute/Authority. A statistical summary (as outlined in Appendix H) therefore should be provided to the Board and Executive Council. The annual course statistics should cover a full financial year, to make it easier to relate expenditure to performance. This summary should be the main document, but Appendix G would also be available to the Executive Council and Board members, for those who want to look more closely at the figures.

8.6 Where it is not possible to access easily the required information, or where a detailed or complex investigation is required, this should be treated as a project, with the consequent need for approval and allocation of suitable resources, and setting of priorities. These enquiries would entail the use of a specialist to obtain the necessary information, and possibly special computer programmes to be written.

8.7 The existing tools for organising and extracting data are not adequate for allowing easy and convenient self-access for the purposes of undertaking statistical analyses. What is required is a programme which automatically merges new student data with existing student data, in a consistent way for all students, to create a dynamic, up-to-date master student file.

8.8 Once this basic master student file is created, standard statistical analysis software packages (such as SPSS) can be bought, which will enable data to be easily abstracted in the form required by anyone authorised to do so, whether or not they have programming skills. It is recommended that such a package capable of running on the mainframe should be purchased.

8.9 For research or evaluation enquiries requiring substantial statistical analysis or cross-breaks, the appropriate information required (e.g. information about students on a particular course) should be abstracted from the master data-base for local processing on micros, thus reducing CPU time. This would require purchasing one suitable micro for each main programme area (i.e. approximately five) plus suitable micro software packages, to provide statistical analyses and cross-breaks. Thus simple analyses could be run directly on the mainframe; more complex analyses would be done on micros, to reduce CPU time.

8.10 In order to provide accurate costing and an efficient implementation of these

recommendations, Information Systems should be requested to do an initiation study to see what is required to provide a basic, dynamic master student file, and what packages would be most appropriate for abstracting and analysing data, including standard statistical tests.

9. Course evaluation

A two-tier approach to course evaluation is proposed, with a standard, minimal evaluation procedure for all courses, and a special evaluation procedure, or project, for selected courses only.

Changing course material

It is important to distinguish between two quite different kinds of reason for making changes to a course. The first is because the course is not viable as it stands. This may be because the text book on which it was based is no longer in print, because there are fundamental flaws in the teaching, or because the assignments bear no relationship to what is being taught. In these cases, changes are absolutely necessary, resources must be found, or the course must be withdrawn.

The second reason for making changes is because although the course is quite viable as it stands, it could be improved. It is recommended though that changes should be limited in this case to one main batch which can be made at very low cost, early on in the life of the course. Resources for remaking courses are limited, and should be concentrated on those courses most in need of changes.

The goal then should be to aim for high quality courses robust enough to last without the need for constant changes. There is a set of procedures that will usually allow course designers to reach that standard, and OLI course designers by and large are aware of those procedures.

Changes to courses after first presentation divert resources away from initial design. In the end, constantly changing courses when resources are limited means that either poor quality courses are offered initially, because insufficient resource is available for course design, or people who could be working on new courses are still revising existing courses. That in the end means that students suffer, because they get less choice.

Standard course evaluations

The standard method of course evaluation being proposed is dependent on the concept of project

management. It is also dependent on a relatively small amount of resource being set aside for each course to allow for changes. Lastly, it is dependent on a properly planned and resourced procedure for looking after a course once students are enrolled (i.e. course maintenance). Evaluation should be part of that course maintenance process.

The current lack of consideration given to the presentation of a course after it has been handed over for production is a weakness. This is when the learning begins, not ends. If project management means anything, it has to be responsible not only for the design of the course but also its conduct. Project management is likely to be in the hands of one person during maintenance, but at the planning stage, decisions need to be taken about how the course will be managed during presentation. Evaluation, and the changes that may need to be made as a result, should be a part of that maintenance activity.

Special evaluations

Special evaluations, because of the cost, should be used selectively. Some reasons which might justify a special evaluation would be:

(a) external funding for evaluation, or because course sponsors or accreditation bodies demand evaluation

(b) a new venture: new target group, a new programme area, or a radically new course design

(c) a high profile course (large numbers of students, government or public interest, etc.)

(d) unusually poor performance of a course or programme, as identified by standard evaluations, without reasons being clear

Special evaluations should be treated as projects, with resources requested not only for the conduct of the evaluation, but also for the changes that will follow as a result. It would be difficult to justify a special evaluation if it was not intended to make substantial changes.

An argument against piloting

In some areas, piloting of courses is becoming popular, that is, trying out materials on the first semester students, then revising materials subsequently. This is being done to take advantage of

desk-top publishing, which enables changes to print material to be made quickly and easily, without typesetting. There are several serious objections to the way piloting is being conducted in OLI at the moment:

(a) it is increasing the cost of course design and in fact slowing down the rate at which new courses are being produced

(b) it is causing major problems in course delivery and student services

(c) it raises questions about the validity of a credit when different students are studying different versions of the same course

(d) there is an ethical problem of 'early' students receiving a poorer version than later students

(e) early versions with a large number of errors and poor design create a bad image for the Institute

(f) changes are not usually made on the basis of systematic feedback and evaluation

It is accepted that in certain areas, it will be difficult always to get the right approach to new types of students or new subject areas first time; also, it will be necessary to change courses from time to time because of significant changes in subject matter (new regulations, unavailability of text books).

However, there are better ways to handle these problems than deliberately designing material in rough pilot forms which are studied by fully enrolled students, then continually changed. Where doubts exist about the target group, this should be handled by a careful study of the target group before course design begins, i.e. as a market research project. If a course still turns out to be unsuitable for the target audience, it is recommended that this be handled through the procedure for special evaluations. If significant changes in the subject matter during the life of a course require changes to the course material, this should be handled as part of project management. In other words, maintenance resources need to be reserved for unexpected changes, or where it is known that changes are likely during the course, course design should allow for changes to be made easily, through the use of separately printed supplementary material for those areas likely to change.

Recommendations

9.1 Course evaluation should be considered as a component of the project management process for course design and delivery, for every new course.

9.2 Courses should be designed with the firm intention of running for at least six semesters without changes; in most cases, changes after that date would be restricted, and limited wherever possible to one set at a date and within resources agreed in the planning stage; in other words, the aim is to design courses which are viable from the first date of presentation

9.3 The following course evaluation decisions need to be made at the project management planning stage:

(a) discussion of overall evaluation strategy, followed by a decision regarding whether a standard or special evaluation approach should be adopted for the course, or whether market research is needed to identify better the requirements of the target group

(b) evaluation costs, work-load and responsibilities, and the timing of the evaluation

(c) the implication for resources, production, delivery and tutoring of any changes likely as a result of evaluation, or changes to course content during the life of the course.

9.4 A standard evaluation approach would ensure that every new course is reviewed at a set time soon after first presentation. Details of how this is done can be refined and possibly simplified, but one suggested procedure is as follows:

(a) every new course should be reviewed within six months of the first semester of presentation (or as near as possible to that time, if examination arrangements prevent results being available within that period)

(b) collection and analysis of information for the course review should be seen as part of the maintenance of a course (i.e. the management of a course during its presentation); one person (i.e. the person responsible for course maintenance) should be responsible for co-ordinating evaluation information.

(c) an evaluation file for each course should be opened from the start of course design:

into this file would go course developer's doubts and queries about design, course consultant's comments, delivery and tutoring issues, errors spotted after delivery, letters and phone-calls from students, advisers and tutors, and any emergency action taken; the file should be kept open for the whole life of a course.

(d) emergency action would be taken within the first six months of course presentation only in exceptional cases (i.e. where serious consequences likely to lead to widespread student failure would result because of not acting).

(e) the person responsible for course maintenance should commission within six months of the first presentation of the course:

i a standard print-out of the first semester enrolments and grade distributions (see recommendation 8.6.i.)

ii tutor statistics (see recommendation 12.3)

iii. a statistical analysis of assignment and examination questions as soon as they are available; these can be compared with data from other comparable courses; if necessary, more data (e.g. student demographics) can be called up from the data-base (recommended changes to the data-base will make this procedure much simpler and easier than at present). This information would be added to the evaluation file.

(f) The senior tutor or course co-ordinator should formally contact tutors (and exam. markers if different) by phone after the first examination for detailed comments on the course, using a semi-structured set of questions, designed in conjunction with the course developers. The senior tutor or course co-ordinator would then write a report on the course based on this tutor feedback. This report would be added to the evaluation file.

(g) the senior tutor or course co-ordinator would then prepare a report on the course, using all the information in the evaluation file, including a recommended course of action. A copy would be sent to the head of the programme area.

(h) if the course is considered to be generally satisfactory, or changes can be

accommodated within the maintenance budget, the evaluation file would be kept open by the course maintenance person, who would also be responsible for drawing attention to any subsequent developments which might require unplanned changes to the course.

(j) if there are major problems, which cannot be easily explained from the standard evaluation (e.g. an unusually high drop-out rate), the head of the programme area would decide whether to bid for funds for a special evaluation; whether to leave the course as it is; or whether to withdraw the course altogether.

(k) where changes are being proposed to an existing course, tutors should be consulted about the proposed changes.

These recommendations need not be followed in detail, but provide an example of how a standard evaluation procedure might be conducted.

9.5 A special evaluation of a new course may on occasion be appropriate, but as an exception rather than a general rule. This would involve a more detailed study of a course, and would usually be linked to a prior commitment to substantial changes to the course as a result of the evaluation, if this proves necessary. Special evaluations, because of the cost, should be used selectively. One procedure would be as follows:

(a) If a special evaluation is decided at the initial planning stage, it should be timed so that information is collected during the first and possibly second semester; otherwise, information should be collected as soon as possible after a standard evaluation has identified problems. It will usually be necessary then to run a course for several semesters before a revised version can be introduced.

(b) Special evaluations should use postal questionnaires and/or telephone interviews for students, and any informal group discussions that can be arranged, as well as the procedures outlined for standard evaluations.

(c) Once the information is collected, decisions should be made about necessary changes, within the budget allocated; in addition, an executive summary should be widely circulated and an open seminar held to discuss the implications of the report.

9.6 Piloting or pre-testing of courses should be treated as a special evaluation.

9.7 It is recommended that each major programme area should review its activities annually. This would require a meeting of the staff within a programme area, chaired by the head of the programme, at which courses, delivery, tuition and other issues would be discussed. The aim of the review would be to identify necessary changes to next year's programme of activities, and might coincide with budget projections for the following year. For this meeting, a paper should be drawn up which provides a summary of enrolment and grade information for all courses in the programme area over the year period (see recommendation 8.6.ii.). Course evaluation reports prepared during the year would support this documentation.

10. Project research

There are two different kinds of project to be considered. The first are development projects. which may or may not have a research or evaluation component, and the the second are research projects. i.e. projects which are fundamentally research enquiries, but not necessarily with a development aspect.

Projects are considered to be well-defined activities of initially limited duration. In other words, resources are committed for a definitely limited period, although if, in the case of a development project, it is considered successful, the activity may convert into an on-going operational activity. It would then though no longer be a development project.

Development projects

There are very strong arguments for ensuring that research and evaluation are built into development projects. Research and evaluation can:

(a) improve the project during its operation

(b) provide external credibility

(c) account for the way resources have been used

(d) enable lessons to be learned which may apply to other projects/activities

(e) help decide whether or not to operationalise/continue with the development activity

A development project may have one or more of the following criteria for success:

(a) improvement in quantity (doing the same as before, but more cheaply; or getting more for the same money)

(b) improvement in quality (reaching higher standards for the same cost)

(c) increasing activities (doing something new: reaching new audiences, teaching a new subject, bringing in additional resources)

By their nature, development projects tend to be exploratory. Often then the benefits or limitations of the development will not become apparent until some way through the project, and may be quite unanticipated. Also, whether or not a development succeeds is likely to depend as much on the conditions under which the activity operates as on the technology or development itself. For these reasons, research and evaluation methodology, and criteria for judging success, need to be flexible.

Lastly, it is assumed that development projects will be assessed, approved and managed in the same way as other projects.

Recommendations

10.1 Evaluation should be built into project management. This means:

(a) discussing the evaluation strategy at an early project planning stage

(b) determining at this stage the necessary resources (manpower, funds, and timing of evaluation)

(c) conducting evaluation as a defined, continuous activity throughout the project

(d) defining criteria for success.

10.2 Evaluation designs for development projects should be flexible, to reflect the context of the project, and the often exploratory nature of development projects; initial objectives for instance may legitimately be revised as a result of experience.

10.3 It is important in the evaluation of development projects to look at process as well as outcomes (how best to do things, as well as looking at costs and learning results). This may require:

(a) a qualitative, observational approach

(b) identification and recording of key events in a project

(c) explanation of why events/decisions were made, as well as description

(d) examination of the teaching or decision-making process, examining, for instance, the nature of interaction between learners and teachers, or what kinds of learning take place as a result of developmental activities

(e) analysis of the development's impact on work roles, need for new skills, training, etc.

(f) resource implications, not only in terms of costs incurred, but how a new development affects the balance of costs between different activities and spending departments (e.g. audio conferencing may require a shift of costs from production to delivery)

10.4 For these reasons, it is recommended that evaluation of development projects should generally be conducted internally, i.e. by project staff, but with external assistance from a professional evaluator, acting as a consultant, wherever possible. This means that evaluation resources may better be spent increasing the internal manpower of a project, to allow internal staff to have adequate time for evaluation activities. Credibility will depend then on high quality, clearly written evaluation reports, which allow those not directly involved to understand the development project, its achievements and difficulties.

10.5 To ensure high quality evaluation, it is recommended that evaluation should account for a minimum of 10% of internal manpower resources on a development project.

Research Projects

A large number of research and evaluation projects have been suggested by staff at OLI and KN. Good research requires careful selection of topics and methods, commitment, skill and interest from those conducting the research, and a decision-making framework that will facilitate changes as a result of the research.

Research projects into open learning and distance education may originate from the following sources:

(a) The OLA Executive Council may wish to research significant areas of concern to assist decision-making.

(b) Programme areas and operational units, who will wish to conduct research related to courses, problems or developments specific to their areas.

(c) Individual staff, who wish to pursue a particular research topic associated with their area of work.

(d) Externally funded or initiated studies, concerned with general research problems in open learning and distance education, but requiring use of or access to Open Learning Authority data or students, or needing to work in conjunction with OLI/KN.

Research projects then will have a number of different clients, so it is advisable not to centralise all resources for research projects. At the same time, it is necessary to have formal approval procedures to ensure that worthwhile projects are properly conducted.

In setting priorities, it is important to have clear criteria. I offer the following as guidelines for research project approval:

1. Is the research likely to increase the effectiveness of open learning in British Columbia?

2. Is the research likely to enhance the reputation of open learning in B.C.? (Note that this does not mean that potentially critical studies should not be undertaken; it is

equally important to demonstrate that activities are being carefully analysed and assessed)

3. Is the research likely to identify major problems in open learning which need to be identified and addressed in B.C.?

4. Is there a clear client for the research, and is the client likely to act on the findings of the research?

5. Is the project likely to be competently conducted, with appropriate methodology and timing?

6. Is the project likely to give a good return for the resources invested? (Small projects with a limited goal are often more likely to succeed than large projects with grandiose aims.)

Lastly, it is assumed that research projects will be assessed, approved and managed in the same way as other projects.

Recommendations

11.1 All research projects should go through a formal approval procedure, to ensure projects of significance are undertaken, to avoid duplication and to ensure that they are competently conducted.

(a) Bids can be proposed by any individual or group of staff, but should be discussed with their superior manager and referred upward for approval.

(b) The Executive Council should assess and if appropriate approve any single research proposal requiring more than $50,000 of resources (manpower and/or cash), or involving co-operation with external institutions, or paid for out of the Executive's own research and development budget.

(b) Vice-Presidents should assess and if appropriate approve any project within their area requiring less than $50,000 worth of resources from within that area.

(c) The Director, Research and Evaluation Methods, should be consulted regarding the assessment of all research proposals (see recommendation 14.2)

11.2 Research projects may be resourced from the following sources (see recommendations 14.5-14.10):

(a) re-assignment of duties of internal staff (e.g. reduction in production activities).

(b) a sum of money held by Executive Council (recommended amount: $100,000) and/or a sum of money available to each of the four component areas (recommended amount: $50,000 each); these sums of money may be used either to buy out internal staff from operational duties (using the money for staff replacements), or to hire in external research staff.

(c) use of professional development time of internal staff.

(d) external funding or assistance from other institutions.

(e) any combination of the above.

The aim is to provide flexible but limited sources of funding for research projects.

11.3 In general, it is better to encourage staff to conduct research as a team rather than in isolation. Resources should be concentrated on a limited number of significant projects rather than lots of small projects.

11.4 The approval procedure and sources of funding for development and research projects should be the same.

11.5 Sources of external funding, and co-operation with external agencies, should be developed wherever possible. University post-graduate students should be encouraged to work with the OLI and KN, under joint supervision, to collect data and conduct research studies. OLI and KN should help University staff define significant research areas suitable for study by doctoral students. Joint studies on common areas of interest (e.g. drop-outs, learning at a distance, tracer studies following the progress of students) should be carried out jointly with other open learning and distance education institutions, through both the proposed Centre for

Research and Education in Open Learning, and through the various Canadian distance education associations (CADE, WCCUDE).

11.6 However, the opportunities for such joint and external activities should not deflect OLI and KN from their responsibility to set their own priorities for research and evaluation, and for conducting their own internal research and evaluation activities.

11.7 It is recommended that the following research projects should receive top priority. I have put them in my own order of priority, but the actual ordering of priority should be determined by the Executive Council:

i Information Systems to develop a basic, dynamic master student file, and purchase of packages appropriate for abstracting and analysing data, including standard statistical tests. This should be a top priority within Information Systems (existing) development budget, since without it, evaluation and research cannot really begin.

ii development of an accurate and practical means of costing OLA activities (essential for project management) - funded from (new) Administration research funds.

iii Knowledge Network audience research study (see proposal 12.2): from (new) KN research funds, perhaps linked to (v) and (vi) below.

iv at least one special course evaluation per year (as well as standard course evaluations on all other new courses) in each of the Open University, Open College, and KN programme areas (research funds from appropriate areas' research budgets).

v profiles of the OLI student: a statistical analysis of age, occupation, education, motivation by programme area, and comparison with the general population of B.C.: using new data-base and new project officer (no other cost).

vi market survey, to identify the public's knowledge and opinion of OLI, KN and OLA, and their perceived relevance to individual's needs: (new) Executive Council research fund.

vii study of means to link OLA better to provincial and federal industry, commerce, government and voluntary organisations, to identify better their continuing and

distance education needs, and to educate them into the potential of open learning (e.g. directory of agencies and contacts, high-level conference, etc.): from Executive Council Research fund, with staff seconded from relevant programme areas (this should be a low-cost project, using existing resources as far as possible).

viii identification of obstacles to qualification through open learning; barriers to the pyramid of opportunity: individual case-studies, showing the perspective from the individual student: from Executive Council research fund - link to (ix).

ix tracer studies: what study paths do OLA students follow; what happens to drop-outs; where do OLA students come from (in terms of previous educational activities)? where do they go to? - from Executive Council research fund.

x project to identify whether there is sufficent field support for students, and if not, what steps can be taken to improve student support, and in particular whether the role and recruitment of tutors needs to be changed, and what role other universities and colleges might play in providing field support to OLA students to increase student support: from Executive Council research fund or Administrative research fund.

xi study of specific B.C. open learning needs and the needs of minority groups: how does open learning look from their perspective; what are their special needs; what can be done for them? Some prospective groups:

- long-distance fishermen (Open College budget)
- BC people working overseas (University budget)
- lumber industry (Open College budget)
- mining industry (Open College budget)
- really remote students (Administration research budget)
- native Indians (Open College/ABE research budget)
- handicapped students (Administration research budget)
- unemployed students (Open College/ABE research budget)
- English as a second language (Open College budget)

No doubt other minority groups could be identified.

xii An analysis of the reliability and validity of assessment questions (see proposal 12.8): from Administration budget.

The above project recommendations should not preclude other studies being carried out, if resources can be found for such studies, and they are approved by the relevant Vice-President.

11. Tutors, advisory services, and validation of student assessment procedures

This is the most difficult area for me in making proposals. First, there is a major difference between my own institution and OLI/KN in the way student services are organised. This leads to some reservations on my part about the general policy in OLI/KN of keeping regional services to a minimum. In my own institution, 20% of the total budget is spent on regional services. Despite more than half of this going on administration (regional offices, etc.), there is in the British Open University an elaborate system of correspondence, telephone and face-to-face tuition, extensive counselling services, and as much personal contact between students and tutors as the system can manage.

Not all students need or want extra support; one reason why many students study through open learning is because they prefer to study alone. However, for other students, at least in the British Open University, close contact with tutors and other students is very important, and helps to keep many students in the system who would otherwise drop out. Other studies of OLI (see for instance, Keegan, 1982) have suggested that student support services do need to be improved.

70% of all 167 OLI tutors live in the Greater Vancouver area. Less than 10% live in areas other than Greater Vancouver and Victoria, compared with over 40% of the students. Does this matter? Can such tutors fully understand the needs of more remote students? Would a closer match of tutors to students in geographical distribution lead to more frequent, and more informal, contacts between students and tutors? Could suitable tutors be found in these regions, and what would the implications be for current contracts of dropping some existing tutors? Should tutors' roles be broadened slightly to provide more general advice to students on courses? Would a more equally distribution of tutors around the province lead to better communications with local colleges? What would be the implications for work-load, training and budgets in broadening roles?

I am aware of the major differences in the numbers and geography of students in the two systems. Even so, I have still found myself asking the fundamental question as to whether the balance of

resources in the OL/KN between production/delivery on the one hand, and student services on the other, is right. In other words, do students get enough support? To answer that question, the possible role of universities and colleges in providing support for OLA students would need to be examined, and extensive research activities into student needs would have to be undertaken. This would be justified only if there was a policy commitment to increase or transfer resources, and/or commitment from the Universities and colleges to co-operate, and/or Provincial Government commitment to look at the funding of Universities and Colleges to see if this kind of support can be encouraged, if the studies did indicate the need to increase student services. Nevertheless, this seems to be such an important policy issue that evaluative research in this area should perhaps receive at least as great a priority as in course production.

Even within the context of the OLI/KN, a very wide and diffuse range of activities is covered within the area of student services: relationships with local colleges and business, advice and information on courses and inevitably careers, tutor training and effectiveness, the effectiveness of delivery systems, and the validity of student assessment procedures. This spread of areas of interest makes it difficult to concentrate limited evaluative research resources.

Thirdly, I have found it more difficult to pin down clear lines of decision-making and responsibilities in this diffuse area (itself an interesting issue), but this is essential if research is to influence decision-making.

For these reasons, my proposals for research and evaluation in these areas are more tentative.

Evaluation of tutors

Tutors are an essential part of open learning systems. Their role in providing feedback on courses has already been discussed. However, tutors themselves have a need for professional development and training.

At the moment, information about tutors is mainly statistical, and is used for mainly summative evaluation purposes. The present system of tutor evaluation is unsuitable, being based on a complex and time-consuming print-out of quantitative data on tutor assignments which is not easy to analyse, and which is not really justified in terms of the relatively small numbers of tutors involved (although it may be necessary for payment purposes). More direct methods of evaluating tutor performance should be used.

More importantly, tutors themselves often work in isolation. They need formative evaluation, in order to improve their skills as distant tutors.

I am impressed by Athabasca University's computerised system for monitoring student and tutor progress and performance (TRIX). This requires every tutor to have a terminal, and to be responsible for entering data about student grades and performance directly. It does though provide a very user-friendly system, enabling both tutors and course co-ordinators to be able to see at a glance which assignments have been submitted and marked, which students are behind schedule, and a range of other important indicators of student and tutor performance. This is the kind of system that OLI needs, but supplemented by more qualitative information.

Recommendations

12.1 Tutors should be evaluated on

(a) their efficiency in turning round assignments

(b) the reliability of their marking of assignments

(c) the quality of their communication with students (comments on assignments, advice and help to students)

These three criteria should be of equal importance.

12.2 Senior tutors should be responsible for evaluating tutors in their subject areas. Where there is no senior tutor in a subject area, it should be the responsibility of the course-cordinator, but this should be only a temporary arrangement until a senior tutor post is available. The need to evaluate tutors should be taken into account in senior tutor workloads.

12.3 A senior tutor should normally request a copy of at least one assignment, preferably more, per tutor per semester from registry. If there is cause for concern, the senior tutor should then request to see a sample of the tutor's <u>next</u> batch of assignments. It may be necessary as a result of such an inquiry to re-grade assignments at the discretion of the senior tutor. Senior tutors should also contact each tutor on a regular basis by telephone or other means. Unless a system like TRIX is installed, senior tutors should also be sent each semester a print-out of assignments submitted and marked by all tutors in the subject area. (A computer

routine already exists for such a print-out). This would indicate turn-round time and quantity of assignments marked by each tutor. In exceptional cases, senior tutors may also want to contact students directly by phone if they are concerned about a tutor's performance. The main purpose of monitoring tutor marking and commenting would be to help tutors improve performance, rather than to assess the need to terminate employment, although that may be necessary in extreme cases.

12.4 There should be an agreed and clearly publicised student appeal procedure regarding assignments. The senior tutors should deal with student appeals regarding assessment of individual assignments. The procedure, including to whom appeals should be made, should be printed in the OLI calendar.

12.5 Senior tutors, in association with their course co-ordinators, should be responsible for organising occasional workshops for tutors, on assessment strategies, counselling, and giving helpful study advice, etc.

12.6 Information Systems should be asked to conduct an initiation study to identify the feasibility and costs of introducing the TRIX system.

Evaluating student support

12.7 It is recommended that a research project is undertaken to identify whether there is sufficent support for students, and if not, what steps can be taken to improve student support, and whether the role and recruitment of tutors needs to be changed to increase student support. It should look in particular at the roles that regional colleges might play in increasing local support for provincial distance education students. The project should involve a management team which would include a remote tutor, a representative of a regional college, a Programme Area Director or course co-ordinator, a remote student, someone from the registry, Jan Muirhead or Denise Hartmann, and a regional student advisor. It would conduct a survey of students and tutors, and would prepare financial estimates for any recommended changes.

Validating assessment procedures

12.8 It is recommended that, as well as monitoring by senior tutors, a means of analysing the reliability and validity of both continuous and examination assessment questions is devised.

to ensure consistency in the level of qualification. A small project team should be established, consisting of a programme area director or course co-ordinator, someone from the registry, someone from Information Systems, and an external consultant specialising in examination validity procedures, to recommend methods and procedures.

12. Knowledge Network

Knowledge Network requires a different approach from OLI in setting up a research and evaluation programme. OLI is more 'staff-intensive' than KN, and therefore OLI has more scope for evaluation and research to be incorporated into normal operational activities, and to some extent absorbed by current staff as part of their duties.

KN on the other hand has very few staff, particularly on the educational side. These few staff are already heavily loaded, and even if they do take on evaluation and research responsibilities, their collective impact would still be small. They are therefore more dependent on external assistance for research and evaluation activities.

The other major difference is that while OLI has good information on its students, and especially their names and addresses, KN 'students' or viewers are either generally unknown, or available only through other institutions' registration systems. This makes the collection of information and feedback on programmes much more difficult, and hence more specialised and professionalised methods are necessary.

Audience research

While Nielsen and BBM statistics have their value, in terms of overall numbers watching KN, they have severe limitations. First of all, they are based on too few households to be statistically reliable with regard to the more specialised Knowledge Network audience, at least as far as individual programming is concerned. Secondly, they provide very limited information. As a consequence, key information, such as accurate, detailed and up-to-date figures of households both capable of and actually receiving specific Knowledge Network programmes, or viewers' reactions to programmes, is lacking. In order to provide this information, a number of steps need to be taken.

Recommendations

13.1 A survey needs to be commissioned from a leading market research or census organisation (possibly Statistics Canada), to identify accurately, through careful sampling, Knowledge Network reception capability and utilisation within the province. If possible, the KN enquiry should be piggy-backed on a household survey already planned by the external research organisation, to reduce costs. The aim would be to identify across the province the number of households able to receive KN via cable with and without a convertor, or direct from the satellite (i.e. actual rather than potential reception facilities), the extent to which those households utilise KN programmes, and their reactions to the KN service in general. This will require extremely careful sampling procedures, and will be a relatively expensive exercise, involving several thousand households across the province. Data collected from the survey should be stored on the OLI computer, and collected in such a way that it is compatible with the OLI student data-base. This survey would not need to be repeated every year, so should be treated as a project.

13.2 The mailing list already held by KN, primarily for marketing purposes, could also be added to the market survey information, although it will be important that the two sets of information do not become confused, and work will need to be done to ensure that the marketing list is as compatible as possible with the OLA data-base.

13.3 One benefit from the survey in 13.1 is that it could provide a good sampling base for enquiries about specific programmes, since from the initial (large) sample of people identified as able to receive KN programmes, smaller samples representative of the general population can be drawn for specific programming enquiries, and rotated to avoid over-use of certain households.

Project research

For reasons given in the introduction, research and evaluation at KN should be mainly in the form of development or research projects or special evaluation studies rather than the standard evaluation procedure recommended for OLI (at least until a significant proportion of KN's programming is in association with OLI courses).

Recommendations

13.4 KN ought to have a greater sum for project research than the other programme areas, and make greater use of external research organisations. (The recommended minimum figure is $100,000).

13.5 Professional development time should be used to allow KN staff to direct and participate in externally commissioned projects.

13.6 It is recommended that research be directed at key programming policy decisions over the next few years. For instance, research might be conducted into:

(a) the effectiveness of live, inter-active programmes

(b) appropriate production styles for different target audiences (e.g. general education, telecourses, teleseries) in terms of perceived audience need

(c) the impact of video-recorders on the use of KN programming (access to recorders by different target audiences, implications for production style, support materials)

(d) the need for media education (how to 'read' television)

(e) ways to increase student learning from television (production style, use of recorders, signposting) related to different programming areas

(f) better ways to identify and select appropriate programming (relative merits of market research, advisory committees, how to involve wider range of agencies, etc.)

(g) better ways to liaise with wider public (a computerised directory of agencies, use of subscribers/mailing lists, newspaper, open-access video-boxes, for public to record opinions about needed programming and support services)

(g) analysis of programming: sources, relevance to BC, spread of target groups, market research into demand for areas not covered, provision of programming for the disadvantaged

(h) reactions to imported programming

Some of these studies could be integrated. Research methods would include postal questionnaires, telephone interviews, group discussions and individual, person-to-person interviews, using small but carefully selected samples of actual programme viewers. Some of these projects would be appropriate for joint research with Universities in the province.

13.7 To ensure that research is directed to meeting the needs of KN, and is properly co-ordinated and integrated with programming and development work, it is recommended that a small committee of KN staff, plus the Director, Research and Evaluation Methods, be established to define research needs, allocate funds, commission studies, and disseminate and act on the results.

13. Organising and funding research and evaluation

Principles

Throughout the consultancy, I have been guided by certain basic principles and assumptions:

1. Evaluation and research should be the responsibility of each component, department, and operational unit.

2. It is therefore the responsibility of managers to ensure it happens.

3. Evaluation should be considered a normal part of everyone's work. Research on the other hand needs to be planned as a special activity.

4. Evaluation should be considered as part of project management, and planned and resourced in exactly the same way as other project activities.

5. Research studies should be treated as projects, and managed in the same way as other projects.

6. Extra resources for evaluation and research activity would be limited, but nevertheless there may be some scope for extra resources being found.

7. Otherwise, evaluation and research resources would need to be found either by reducing some other activities, or by increased efficiency.

I have, by and large, been able to accommodate my proposals to these general principles. Virtually everyone interviewed recognised that evaluation and research was their responsibility within their own area, and they were willing to do research and evaluation.

Making better use of people's time

However, equally, almost everyone was concerned about lack of time and lack of expertise.

The lack of time

The lack of time can be met by re-organising people's workloads and a modest increase in resources. Time management is generally poor. Individuals should aim to plan their time across various activities, and try to achieve their goals within that time. However, there appear to be no 'norms' for various activities, such as required manpower (in days/months) for course design, nor any strict enforcement of production time for a course. This is a management responsibility: without such guidelines, it is impossible for individuals to plan their work efficiently. This is a larger issue than evaluation and research, but I believe that better time management would free up some time for evaluation and research activities.

Recommendations

14.1 (a) rough estimates should be made of person-days required to produce a course, across the various job categories (this is necessary in any case for proper project management)

(b) each individual in the course design and production area should negotiate with their immediate manager a rough estimate of how time will be spread over various work activities; these estimates should take account of all the demands on people's work-times (course maintenance, administrative activities, evaluation, professional development, etc.)

(c) commitment to new course production would take account of person resources available, and this would influence project planning; once committed, courses

should be produced according to the agreed schedule, and staff, having agreed the time necessary, would work to those norms

The lack of expertise

The problem of expertise is more difficult. There is a professional body of knowledge regarding institutional research and evaluation, and a large number of skills required. I do not think it is feasible to bring everyone up to the necessary minimal standards by in-house seminars or by contracting in professional expertise on a short-term basis. Perhaps most important of all, good quality evaluation and research requires methods to be adapted to the organisation and practices of the system in which research and evaluation is to be conducted. Therefore there are strong reasons for requiring an internal, full-time specialist in this area, with both specialised knowledge of evaluation and research methodology, and a good internal knowledge of the system.

I also believe that if limited resources are to be used efficiently for evaluation and research, there is a major need for co-ordination. Such a person would have Agency-wide responsibilities, and would play an important role in liaison and joint studies with other organisations in and outside the Agency.

Lastly, a large number of people doubted that evaluation and research would happen to any extent, unless there was what the French call an 'animateur': someone who would encourage, advise, co-ordinate and motivate people to carry out the evaluation and research activities in an energetic and professional way.

Recommendations

14.2 It is recommended that a Director, Evaluation and Research Methods, should be appointed, with the following responsibilities:

(a) advice to CEO and Executive Council on evaluation and research matters, including the feasibility and quality of research proposals and evaluation procedures within OLI/KN.

(b) the design and contracting of evaluation and research activities commissioned by the Executive Council

(c) organisation and analysis of statistical data about students and courses for the Executive Council

(d) advice to staff in OLI/KN and other B.C. open learning agencies on evaluation and research methodology, including advice on the design and conduct of research and evaluation activities, appropriate external research agencies, sources of funding, report writing, and dissemination

(e) the co-ordination of evaluation and research activities, to avoid duplication and to ensure widespread dissemination of research and evaluation findings within OLI/KN

(f) liaison with other open learning agencies involved with research and evaluation, with a special responsibility to disseminate research findings from other institutions of relevance to OLI/KN.

14.3 The appointment of a Project Officer (Evaluation and Research), to assist OLI/KN staff in using the data-base, to draw samples, and to process and analyse research data; the project officer would be responsible to the Director, Evaluation and Research Methods

14.4 Three options are offered regarding the organisational location of the Director, Evaluation and Research Methods, and the Project Officer:

i Directly reporting to the CEO, in the same way as other Authority-wide services, like the International Office

ii Location within the Administration component

iii Creation of a new component (Authority Services) which would combine all the Authority-wide services, including evaluation and research assistance

My own preference is for (i) in the short-term, but (iii) in the long term. I am not happy about (ii), because the Director should be independent of operational units.

Funding

14.5 (a) The Executive Council should set priorities for research or special evaluation

projects requiring more than $50,000 in resources (manpower and/or cash, including a cost for time of existing staff assigned to work on the research project);

(b) Vice-Principles should be free to approve evaluation and research activities within their own area costing less than $50,000 per project, provided they have the resources within their areas, and have checked with the Director, Evaluation and Research Methods, regarding the feasibility and quality of the proposals and lack of duplication with activities in other areas.

14.6 Standard evaluations should not require extra resource. The procedure recommended is not labour-intensive and should reduce the overall time spent on changes to course material.

14.7 If the recommendation regarding professional development time is accepted (recommendation 5), this will provide a substantial pool for approved development, special evaluation and research projects, although development, evaluation and research will not be the only activities carried out in professional development time. There could though be perhaps a drop in course production of around 5-8% per year (maximum) to accommodate this recommendation, even allowing for some efficiency savings from the standard evaluation procedure and better time management, unless extra resources are found.

14.8 This leaves three options with regard to the recommendation regarding professional development time:

(a) don't do it

(b) see it as a replacement activity for some other activities

(c) cost it as an extra resource requirement

14.9 Revised procedures for making the data-base more accessible and purchase of appropriate software should be considered part of Information Systems normal development budget. If though other demands of equally high priority mean that these revisions would be delayed, extra resources (probably not in excess of $60,000), should be found from the 1987/88 budget.

14.10 In addition to a slight reduction in course production activities, these recommendations

require the following extra resources per annum:

Salary and overheads for Director, Evaluation and Research Methods	$60,000 (?)
Salary and overheads for Project Officer (Evaluation and Research)	$40,000 (?)
Cash for special evaluation and research projects:	
Executive Council	$100,000
University	$50,000
Open College	$50,000
Administration	$50,000
Knowledge Network	$100,000
Total	$450,000

Expenditure of £450,000 should enable all the proposals and projects suggested to be implemented.

Implementation of proposals

Some thought needs to be given about the implementation of the proposals that are accepted. It might help to indicate the sequence and relatedness of the different proposals. The following is the recommended sequence.

1. Alteration to the data-base structure. IS priority
   If not implemented, most of the other proposals cannotbe implemented, either.

2. Appointment of Director and Project Officer $100,000
   Essential for advice on standard evaluation, project research, and supporting evaluation activities

3. Tutor evaluation Nil cost
   Could begin immediately, if senior tutors agree

These three proposals could be initiated immediately

4. Standard evaluation procedure put into place — Nil cost
Dependent on establishment of project management and data-base changes

5. Project research — ≥$350,000
Some development projects could not wait, but major research projects should await appointment of Director and establishment of data-base requirements

The implementation of proposals approved by the Executive Council will be the responsibility of the various programme areas. It might though be worth considering who is to be responsible for ensuring that the proposals accepted by the Executive Council are implemented, since implementation is likely to require some considerable effort and re-organisation. If the appointment of a Director is approved, that person could be responsible for reporting to the Executive Council. If not, the Council should nominate someone else to monitor progress.

It should be possible though for the majority of the proposals to be implemented and operational by May, 1988, although some of the research projects may need to be phased in over a longer period, if $450,000 is not available in 1987/88 for these proposals.

Acknowledgements

I would like to thank all the OLI and KN staff who contributed towards this report by so willingly giving up their time to talk to me. They are listed in Appendix B. I was extremely impressed by the interest and support from virtually all staff for this study, which is an indication of the importance most staff now place on research and evaluation activities.

I would also like to thank Cheryl Milner, Rosemary Cunningham, and Mary Hammond for their help with compiling and abstracting the list of papers on OLI.

Bottom Line provided the Macintosh equipment on which this report was prepared, and the report was printed on a Laser-writer supplied by Computerland Ltd.

Finally, I would like to thank especially Jan Muirhead, Mary Ann Williamson and Ian Mugridge for all the help and advice they gave me.

APPENDIX A

INSTITUTIONAL RESEARCH AND EVALUATION CONSULTANCY

TERMS OF REFERENCE

1. TO DEFINE THE INSTITUTIONAL RESEARCH NEEDS OF THE OPEN LEARNING AUTHORITY

2. TO ASSESS THE RESOURCES LIKELY TO BE AVAILABLE FOR INSTITUTIONAL RESEARCH ACTIVITIES (INCLUDING EXISTING MANPOWER) AFTER DISCUSSION WITH APPROPRIATE UNITS IN OPEN LEARNING INSTITUTE/KNOWLEDGE NETWORK

3. TO DRAW UP AN INSTITUTIONAL RESEARCH PLAN, WHICH WILL INCLUDE WITHIN THE RESOURCES AVAILABLE APPROPRIATE:

   (i) INSTITUTIONAL RESEARCH ACTIVITIES (INCLUDING PRIORITIES)

   (ii) ORGANISATIONAL STRUCTURE(S)

   (iii) STAFFING (INCLUDING JOB DEFINITIONS), RESOURCES AND TRAINING IN INSTITUTIONAL RESEARCH

   (iv) METHODS OF CONDUCTING INSTITUTIONAL RESEARCH ACTIVITIES

   (v) SYSTEMS OF DISSEMINATION AND FOLLOW-UP

4. TO DISCUSS AND WHERE POSSIBLE AGREE TO THE PROPOSALS IN THE INSTITUTIONAL RESEARCH PLAN WITH ALL CONCERNED UNITS IN EACH RELEVANT INSTITUTION BEFORE FINAL PRESENTATION OF THE PLAN

5. TO PRESENT THE INSTITUTIONAL RESEARCH PLAN TO THE EXECUTIVE COUNCIL FOR AMENDMENT, APPROVAL AND IMPLEMENTATION

6. TO BE AVAILABLE FOR CONSULTATION TO THE 'WING' COMMITTEE ON RESEARCH, TRAINING AND PROFESSIONAL DEVELOPMENT IN OPEN LEARNING

7. TO BE AVAILABLE FOR CONSULTATION ON OTHER OPEN LEARNING AUTHORITY ACTIVITIES, UP TO A MAXIMUM OF 12 DAYS IN TOTAL

Appendix A (cont.)

Definitions

Institutional research: research which aims to improve the effectiveness and efficiency of open learning, through changes in teaching, administrative and operational activities, generally based on the systematic monitoring of existing methods and practices.

Development: the introduction of new methods and practices for open learning (including applications of new technology) and the provision of externally contracted services other than distance education courses to other organisations.

Professional development activities undertaken by individuals to improve their professional competence, whether instigated by themselves or their employer.

The consultancy has been restricted by agreement to:

(a) institutional research, and not development, except where the organisation of institutional research might overlap with development activities.

(b) advice to the 'Wing' committee on the provision of research, professional training and development in open learning, for those both within and outside the Open Learning Authority.

(c) consultancy on other Open Learning Authority activities, up to a maximum of 12 days

Consultant

The consultant appointed is Dr. A. W. Bates, Professor of Educational Media Research, and formerly Head of Institutional Research, at the British Open University. He will be working with the Open Learning Authority from January 5th until April 3rd, 1987.

INDIVIDUALS INTERVIEWED

Open Learning Institute

Glen Farrell
Ian Mugridge
Dick Scales
Sid Segal
Shannon Timmers
Mike Battistel
John Bottomley
Norma Macovi
Jocelyn Calvert
Denys Meekin
Walter Degams
Doug Cronk
Mark Neilsen
Maureen Lawrence
Honorine Loader
Rosemary Cunningham
Dan Power
Karel Beres
Susan Leslie
Susan Haglund
Diane Read
Jan Muirhead
Heather Druggs
Denys Meekin
Tony Lilly
Mary Anne Williamson
Deb Baker
Dave Gilmore
Peter Dailly
David Symington
Don Weir
Hardy Fischer
Carol Gibson

Knowledge Network

Lucille Pacey
Alexandra MacGregor
Gresham Bradley
Mike Reddington
Ron Harrington
Megan Carvel
Betty Mitchell
David Roach

GROUP INTERVIEWS

University course designers
CTV course designers
University senior tutors
CTV regular tutors

PROPOSALS CIRCULATED FOR COMMENT TO:

All those individually interviewed (as relevant) plus:

Bruce Thompson
Penny Street
Catherine Kerr
Bob Amussen
Linde Love
Jim Wright
John Moore
Carol Rennie
Lily Liu
Denise Hartmen
Jane Andersen
Lois Harries
Joan Richard
Greg Dellmore
University senior tutors

1 OLI Staff Publications Held In The Archives of
The Open Learning Institute Library

Bates, P. Marketing at the Open Learning Institute: a status report. Unpublished report. The Open Learning Institute, 1986.

Bates, Patricia. "VAX offers resource management system for distance education." EDU No.35 (Spring/Summer 1984), 16.

Battistel, C.M. & Ed Giovanella. "Access control and utilization monitor." RSTS Professional 3:1 (1981), 74-78.

Bottomley, John. Discussion of the adaptation of British Open University materials for Open Learning Institute Courses. Unpublished paper. The Open Learning Institute, 1979.

___. Open Learning Institute enrollment projections 1979-1984. Unpublished report. The Open Learning Institute, 1979.

___. Print production audio production and materials distribution at the Open Learning Institute: a status report. Unpublished report. The Open Learning Institute, 1986.

___. "Production, storage and distribution." in Distance education in Canada. ed. by Ian Mugridge and David Kaufman. London: Crown Helm, 1986.

___. "The Production of distance education materials: an industrial process?" Symposium Paper presented at the American Educational Research Association Annual Meeting, New York, March 1982.

___. "Television and satellite use at the Open Learning Institute." Unpublished paper. The Open Learning Institute, 1980.

Calvert, Jocelyn. "Delivery and support of science distance education." in Abstracts of the 15th Pacific Science Congress, Dunedin, New Zealand, 1983.

___. "Facilitating transfer of distance courses." Open Learning 1:1, (1986), 34-37.

___. "A perspective on distance education research." Paper presented at Working Group Meeting on Distance Education Research, Universiti Sains Malaysia, 1984.

Appendix C (cont.)

___. "Research in Canadian distance education." in Distance Education in Canada. ed. by Ian Mugridge and David Kaufman. London: Croom Helm, 1986.

___. "Science degree programmes at the Open Learning Institute." Unpublished paper. The Open Learning Institute, 1985.

___. "Tutoring in the most industrialized form of education." Paper presented at the annual convention of the American Educational Research Association, New York, 1982.

Cunningham, Rosemary. "Distance education in Canada." OLS News 13 (1984), 6.

Dawe, Alan. "Planning for adult basic education." Unpublished paper. The Open Learning Institute, 1979.

Durward, G.W., & M.L. Durward. A telephone survey of distance education students at the Open Learning Institute. Unpublished report. The Open Learning Institute, 1983.

Ellis, John. "The role of research in the development of the procedures and programs of a comprehensive distance education institute." Paper presented to the 21st Adult Education Research Conference, Vancouver, British Columbia, May 1980.

Ellis, John F. and John Bottomley. "Problems and opportunities associated with developing and operating a distance education system." Paper presented to the Open University Conference on the education of adults at a distance, Birmingham, U.K., Nov. 18-24, 1979.

Ellis, John F. and I. Mugridge. The Open Learning Institute of British Columbia: a case study. Distance Education research Group Papers Number 8. The Open University, 1983.

Farrell, Glen M. and Margaret Haughey. "The future of open learning". in Distance Education in Canada. ed. by Ian Mugridge and David Kaufman. London: Croom Helm, 1986.

Formative evaluation report, Spring semester, 1980. Unpublished report. The Open Learning Institute, 1980.

Forsythe, Kathleen. "Knowledge Network- a new hybrid for learning systems." Distance Education 3:2 (1982), 283-292.

___. "Open skies,grass roots." Unpublished paper. Victoria, B.C.: The Knowledge Network, [198?].

Forsythe, Kathleen, and Valerie Collins. "British Columbia- higher education and the integration of a new technology." A case study prepared for Project 1, Area B, Cnetre for Educational Research and Development, OECD, November, 1983. [unpublished?]

___. "Understanding the effectiveness of media in the learning process." Paper presented at the World Congress on Education & Technology, Vancouver, May, 1986.

Grayson, John. "Continuing education: a proposed policy and options for involvement." Unpublished paper. The Open Learning Institute, 1979.

___. The use of audio and related media within the communicational and operational context of three distance learning institutions: a set of options and recommendations for the use of audio and related media in distance learning. Unpublished report. The Open Learning Institute, 1979.

Kaufman, David. "A computer-based instructional system for distance education." Computer Education 8:4 (1984), 479-484.

___. "Course development: industrial or social process." Paper presented at the Annual Meeting of the American Educational Research Association, New York, March 1982.

___. "Distance learning systems for training." Unpublished paper. The Open Learning Institute, 1983.

___. "The future of computer-aided learning at the Open Learning Institute: a proposal ..." Unpublished paper. The Open Learning Institute, 1984.

___. "Practice and theory of distance education: course blueprint." Distance Education 5 (1984), 239-251.

___. "Programs of study at the Open Learning Institute." Summary of presentation given on May 27, 1982 at the Distance Education Conference, Montreal Que., May 25-28, 1982.

Kaufman, David, and John Bottomley. "The Open Learning Institute: entering the twenty-first century [Seminar session presentation]" in Compromise collaboration or competition in higher education; Proceedings of the Forty-first Annual Pacific Northwest Conference on Higher Education, Vancouver, B.C., October 10-12, 1979. Corvallis OR: Oregon State University Press, 1982.

___. "The Open Learning Institute: university program development. Steering Committee for the International Institute for Distance Learning." Information Unit Newsletter No.7 (1980), 12-27.

Kaufman, David, and Denise Sketches. "Designing visuals in self-instruction." Paper presented at the 14th Annual Meeting of the International Visual Literacy Association, Vancouver, B.C., Nov. 20, 1982.

Kaufman, David and Robert Sweet. "Increasing educational opportunity for adults: a Canadian example." Higher Education in Europe 2:3 (1983),?.

Kaufman, David; Usukawa, Saeko; and Denise Sketches. "Visual design in distance education." Canadian Journal of Educational Communication 12:2 (1982), 4-13.

Le Couteur, P. The feasibility of methods of offering a distance learning chemistry course in British Columbia. Unpublished report. The Open Learning Institute, 1982.

Love, Linda. "Guidelines for planning and conducting a teleconference." Unpublished paper. The Open Learning Institute, 1983.

___. The Telidon Project Report. Unpublished report. The Open Learning Institute. 1982.

Macey, Sam. "British Columbia's Open Learning Institute." Management Services 27:8 (1983), 20-25.

McInnes-Rankin, Ethelyn. Adult student and tutor perceptions of academic advising at the Open Learning Institute. M.A. Thesis. Vancouver, B.C.: University of British Columbia, 1986.

Meakin, Denys. "A flexible registration course length and examination system for distance education." Paper presented at the ICDE Conference, Melbourne, August, 1985.

___. "The role of regional centres." in Learning at a Distance. ed. by J.S. Daniel, M.A. Stroud & J.R. Thompson. Edmonton, Alberta: Athabasca University/International Council for Correspondence Education, 1982.

___. "Student services for lightly populated regions." Paper presented to University and College Library Section, Adelaide, 23 August, 1985.

___. "Use of statistics." Paper presented to Management of Distance Education Special Interest Group, ICDE Conference, Melbourne, August 1985.

Mugridge, Ian. "Applications of computer technology in distance education: the case of the Open Learning Institute." Canadian Journal of Educational Communication 14:1 (1985), 6-7..

___. "Consortia in distance education: some Canadian ventures." Open Campus 8 (1983), 22-29.

___. "Distance education and open learning in British Columbia." a.c.u. Bulletin of Current Documentation 76 (Dec. 1986), 2-4.

___. "Distance education in British Columbia." ICDE Bulletin 13(1987), 46-49.

___. "Distance education- a major role to play in the Third World." IDO Newsletter 7:3 (Winter 1985-86), 10-12.

___. "The establishment of a new distance education institution: the Open Learning Institute of British Columbia." Distance Education 2:1 (1981), 98-109.

___. "The Open Learning Institute." in Distance Education in Canada. ed. by Ian Mugridge and David Kaufman. London: Croom Helm, 1986.

Mugridge, Ian, and David Kaufman eds. Distance education in Canada. London: Croom Helm, 1986.

Paterson, J.C. "Student advisory service: regional centres-functions & staffing." Unpublished paper. The Open Learning Institute, 1979.

Rothe, J.P. "Audio teleconferencing and distance education: towards a conceptual synthesis." Distance Education 6 (1985), 199-208.

Scales, K. "A study of the relationship between telephone contact and persistence." Distance Education 5 (1984), 268-276.

___. "A typology applied to distance education in British Columbia." Lifelong Learning 7 (1983), 26-28.

Slade, S., and B. Webb. "Canadian off-campus library services survey." Unpublished report. University of Victoria, 1985.

Sweet, Robert. "Applying Tinto's model of student drop-out to distance education." Unpublished paper? The open Learning Institute, 1984.

___. "Distance Education: the personal response." Paper presented at the Annual Meeting of the American Educational Research Association, New York, March 19-23, 1982. ED 216 658.

___. "Student attrition at OLI: student views of the attrition process and profile of student characteristics." Unpublished report. Open Learning Institute, 1981.

Summative evaluation report & student profile summary, Summer semester 1980. Unpublished report. The Open Learning Institute, 1980.

Timmers, S.F. "Developing biology courses for distant students." in Abstracts of the 15th Pacific Science Congress, Dunedin, New Zealand, 1983.

___. "Distance education- over the rainbow." EDU no.35 (Spring/Summer 1984), p.10.

___. "Microcomputers in course development." Programmed Learning and Educational Technology 28:1 (1986), 15-23.

Timmers, S.F., and J. Calvert. "Science distance education at the 15th Pacific Congress, New Zealand." ICDE Bulletin 3 (1983), 46.

Timmers, S.F., and I. Mugridge. "The Open Learning Institute: recent innovations." in International Yearbook of Educational and Instructional Technology 1986/87. ed. by C. Osborne. London and New York: Kogan Page: Nichols, 1986.

2. PUBLICATIONS ON THE OPEN LEARNING INSTITUTE BY EXTERNAL WRITERS HELD IN THE ARCHIVES OF THE OLI LIBRARY

Brookfield, S.D. and Harvey, L.M. (1981) Semester Enrollment and Examination Structures at the Open Learning Institute: Alternative Perspectives (commissioned paper)

Cherry, J. (1984) Planning for Lifelong Adult Education at Britain's Open University and British Columbia's Open Learning Institute with reference to the recommendations of the Faure Report. UBC: Dept. of Adult Education (student assignment)

Heselton, N.G. (1985) The Future of Teleconferencing at British Columbia's Open Learning Institute. Simon Fraser University (MBA thesis)

Woodley, A. (1983) Institutional Research and Development at the Open Learning Institute UK Open University (commissioned paper)

APPENDIX C (cont.)

3 Papers by Roger Hurt on/for Knowledge Network

From: E::ROGERH 5-FEB-1987 16:22
To: ROGERHURT, ROGERH, TOLYE
Subj:

"Inter-Institutional Co-operation", Pacific Northwest Conference on Higher Education, 1979 (with D.L. Salter).

"Learning in the Eighties - the Interface Between the Human Tutor and Educational Technology", Third Canadian Conference on Instructional Technology, 1980 (with K. Forsythe).

"Joint Student Status: An Idea whose Time Has Come", Canadian Journal of University Continuing Education, Vol. VII, #2, 1981.

"The Development of the Knowledge Network", Chemistry in the Eighties Conference, Simon Fraser University, November, 1980.

"A Preliminary Proposal for a High-Speed Data Network in B.C.", Telematics III - Telicon and Education Conference, University of Victoria, August, 1981.

"Academic Uses of the Inter-Institutional Service of the Knowledge Network", January 1982 (with J. Dewey, C. Foth and K. Svendsen).

"Learning in the Eighties", College Canada, Vol. 6 No. 8, Jan/Feb Spring 1982 (with K. Forsythe).

"The Way for a Small College to Get Further Faster", in "Compromise, Collaboration or Competition in Higher Education", Oregon State University Press, 1982 (with D.L. Salter).
ISBN 0-87071-279-9

"Data Uses of the Inter-Institutional Service of the Knowledge Network", August, 1982.
ISBN 0-919790-01-1

"An Introduction to Open Systems Architecture and Broadband Networks", Putting Telicon to Work Conference, U.B.C., August, 1982.

"Calculus and Strategy - A Design Report for the Development and Delivery of Coursework", February, 1983 (with W.D. Godfrey et al).

"Towards a Computer Fluent Populace", Forth Canadian Symposium on Instructional Technology, Winnipeg, October, 1983 (with K. Forsythe).

"Computer Networks", Knowledge Network News, Fall, 1983.

"Public Networks - Myth or Reality", Inter-Provincial Association for Telematics and Telicon Seminar, Victoria, January, 1984.

"The Technical Requirements of Lifelong Learning, Institutions in Community Intimacy in a Pluralist Communications Network", Federal Department of Communications, February, 1984.

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relier les institutions ecucationnelles cu Canaca avec les banques c'informations Telicon'' (rapport atreçe), Association inter-provinciale de telematicue et de Telicon, Octobre 1984.

''The Sucessful Establishment of a Protoype Network Linking Canadian Learning Institutions and Educational Databases in Accordance with the C.C.I.T.T. X.400 Recommendations'', C O M S O R T E L, April 1985.

''Teleconferencing by Computer - An Introcuction'', C O M S O R T E L, April 1985.

''Regulating the Regulators'', Canadian Conference on Electronic Publishing, August, 1985.

''Large Scale CAL in an Open Learning System'', COMPINT 85, Montreal, September, 1985 (with W.D. Godfrey).

''El uso de la informatica en la educacion et Canada'', Primer Congreso Colombiano de Informatica, Cartagena, Octoter, 1985.

''Teaching Computer Science in China by CAL and Teleconferencing'', CIPS Congress 86, Vancouver, 1986.

''The Golc Coin Consortium of Colleges in Ontario: From Concept to Transformation'', 5th Canadian Symposium on Instructional Technology, Otta.a, 1986

''Networks and Education'', World Congress on Ecucational Technology, Vancouver, 1986.

''The Impact of Machine Indepencent Software on Higher Education'', Communications Technology in Higher Education Conference, Moncton, 1986.

''Virtual Networks, Administrative Domains and Physical Topologies'', University of Waterloo Networking Conference, Waterloo, 1986.

''Telecommunication Strategies for Open Learning'', Knowledge Network, 1986 (with R.J. Martin and D... Roach).

''Teaching at a Distance with CAL'', Open Learning, Issue 3, 1986 (with W.D. Godfrey).

''Project Clear Skies'', Computer Journal (British Computer Society), In press.

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3. OTHER PUBLICATIONS

OPEN LEARNING INSTITUTE (1982) Self-Study Report. OLI Self-Study Steering Committee

KEEGAN, D. (1982) Student Support Services at OLI Richmond: OLI

CRONK, D. (1982) The Future Role of Advising Centres at OLI Richmond: OLI

OPEN LEARNING INSTITUTE (1982) Report of External Team to OLI. Richmond: OLI

APPENDIX D

MEMORANDUM

From: Tony Bates, IET **Ext no**.: 313

To: Peter Dailly, c.c Dennis Meakin **Room no**: hors de Heron

Subject: Improving the data-base **Date**: 12 February, 1987

Problem. The data-base is not organised at the moment in such a way that basic information about courses or students required for evaluation purposes can be readily abstracted. Much of the information required can be obtained through using Datatrieve, but it requires extremely laborious procedures and a great deal of knowledge, both of the data-base and the Datatrieve programme. Other information is in fact impossible to abstract in the form necessary. This limits information about basic performance indicators to a very small number of people, all of whom have other, more pressing operational priorities. Unless this bottleneck is removed, evaluation of courses on a systematic and reliable basis is not possible.

As an example, I attach an enquiry from Jocelyn Calvert regarding drop-outs. After discussion with Heather Drugge, it became apparent that it would take 40 hours of Heather's time to get this information. Despite the fact that I am an experienced researcher, and familiar with data-bases, it would have taken me considerably longer. This is not practical, yet the enquiry is a reasonable one, and the information required for the enquiry is actually in the data-base.

Cause of the problem. The problem is caused because individual student files are not complete. I understand that the data-base is constructed as follows (please correct me if I am wrong). There are three file systems. The master student file is what is entered once only from the initial registration form. Then there is a master course file for each course, which lists details of the course, but not student information. A third file is then created (the student course file) for an individual course, which takes information from the master course file, 'reads' the student files, then identifies which course the student is registering for, then transfers the student numbers only to the student course file. This leaves important demographic information in the student master file. To get any other information about students on any course requires special programmes to be written, or the use of Datatrieve. In other words, to match student performance with other student information, a special record has to be created for each student each time.

Requirement. What is required is a programme which automatically merges new student data with existing student data, in a consistent way for all students. Thus after a student registers for a course, not only should course performance information (e.g. grades) be added to the master student course file, it should also automatically be added to the master student file. Similarly, when a student registers for a second (or subsequent) course, all the student information regarding the

second course should be added to the initial master student file. All fields on the file should be keyed fields. Thus one is creating an easily accessible, dynamic, continually up-dated and above all complete record for each student. Once such a file is created for all students, this becomes the master data-base from which all subsequent analyses can be done for evaluation and research purposes. In other words, the computer will search through the master student file according to parameters set by the enquirer - for instance "Select all students on courses with ADMN codes for all sessions, who previously studied an OLA pre-university course". This would then provide the sample on which further analyses can be done. Using this system, it should be feasible to abstract appropriate sample information for local processing on micros, thus reducing CPU time. (It may also be possible to get rid of the master student-course file altogether.)

Note that while this is a requirement for evaluation and research purposes, it will also become increasingly necessary as more and more students complete degrees, or seek credit transfer, since a full student record will be required. Also, some countries now require, under public data protection acts, that all stored information about an individual should be available to that individual on request. My proposal would make this a much simpler process.

Once this basic master student file is created, standard statistical analysis packets (such as SPSS) can be bought, which will enable data to be easily abstracted in the form required by anyone authorised to do so, whether or not they have programming skills.

Recommended action. Information Systems should be requested to do an initiation study to see what is required to provide a basic, dynamic master student file, and what packages would be most appropriate for abstracting and analysing data, including standard statistical tests.

Appendix D (cont.)

TO Tony Bates

FROM Jocelyn Calvert

RE A datatrieve project

DATE 22 January 1986

I'll describe two of a million possible projects and give some background for each.

Course completion over more than one registration period

Objective: To determine what proportion of students receiving an incomplete (I) grade during their first registration subsequently complete the course.

Rationale: Students who do not complete a course during the normal time period are permitted to re-register at a reduced fee and, on the recommendation of their tutors, to carry over assignment marks from their first registrations. (It is my opinion that they are also permitted to carry over passing exam marks, but I believe the registry dissents.) As a result, the completion rate for a session may not tell us the dropout rate.

Possible strategy:

1. Select all students who registered in university courses for the first time in 8509 and who received an I grade. Such students may have had a previous registration in a different course.

2. Determine what proportion completed the course with a grade of A, B, C or D in a subsequent session.

Notes:
This will not provide a complete answer because I think we attract different groups at different times of the year. For example, the summer calculus crowd could result in different figures for May.

Since the computer flags students who are re-registering in a course, I assume it can select those who are not.

An overall figure for university courses would be useful to begin with. At some point we might want a breakdown by course or the same information for a single course.

Appendix D (cont.)

MEMORANDUM

From: Tony Bates **Ext no**.: 313

To: Jocelyn/Heather **Room no**: Outside Heron

Subject: Datatrieve exercise **Date**: 26 January, 1987

How many students who fail or withdraw go on to complete in another session?

Step 1 Take one session (8505) and discover what kinds of students in university programme pass, fail or incomplete (all students)

8505

All registrants for OU courses in 8505 (All=a)

Table 1: by area

	Low main		Other urban		Rural		Total	
	No.	%	No.	%	No.	%	No.	%
Pass							b	
Fail							c	
Incomplete							d	
Withdrew							e	
Total (N)		100		100		100	a	100

Table 2: by education

Codes	1-2		3		4-5		6,7,8,9		11		10		Total	
	>Grade 11		High S.		Un.tr.		Non-U.g.		>Degree		Degree			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Pass														
Fail														
Incomplete														
Withdrew														
Total (N)	100		100		100		100		100		100			100

Table 3: by occupation

Table 4: by course objective

Table 5: by sex

Step 2 Identify those who registered for the first time for each specific course, across all university programmes (all first time registrants = b) and identify their characteristics

8505

Students registered for the first time for a particular course

Table 6: by times registered for course

	Pass	Fail	Incomplete	N	Total %
First time				b	100
Previously registered					100
Total (N)				a	

Step 3 Identify first time registrants who (a) failed (= c students) or (b) incompleted (= d students), and analyse by area, education, occupation, and course objective.

8505

First time registrants who failed or incompleted

Table 7: by area

	Lower main.	Other urban	Rural	N	Total %
Pass	60	30	10		100
Fail	40	40	20	c	100
Incomplete	30	30	40	d	100
Total (N)				b	

Table 8: by education *Table 9: by occupation*

Table 10: by course objective

Step 4 Identify subsequent fate of first time registrants who failed or

Appendix D (c.)

incompleted

1805

First time registrants who failed or completed and re-registered

Table 11: by subsequent registration (Note change of % column)

Re-registered for course	Failed	Incomplete	Total
B506			
B507			
B508-B604			
After 12 months			
Sub-total	*e*	*f*	*g*
Registered for other OU course			
Registered for other OLI course			
Not re-registered			
Total	c 100%	d 100%	

Table 12: by no. of re-registered sessions

Re-registered for course	Failed	Incomplete	Total
Once			
Twice			
More			
Sub-total			
Registered for other OU course			
Registered for other OLI course			
Not re-registered			
Total	c 100%	d 100%	

Table 13: by grades on re-registration (based on last or best grade)

	Failed	Incomplete	Total
A			
B			
C			
D			
E			
Sub-total	*m*	*n*	*p*
F			
Incomplete			
Registered for other OU course			

Appendix 7 (...

Registered for other OLI course
Not re-registered

Total c 100% d 100%

p = students who failed or incompleted on their first session who then went on eventually to complete

Step 5 Identify characteristics of those who went on eventually to complete, combined with those who succeeded first time

APPENDIX E

MEMORANDUM

TO: OLI and KN Staff

FROM: Ian Mugridge

RE: Workshops on institutional research

DATE: February 2, 1987

As you know, Tony Bates of the British Open University is spending three months looking at the research needs of the Open Learning Authority. As part of his activities, he has offered to give a series of workshops for institute and network staff. These have been scheduled as follows:

(1)	12th February HERON ROOM OLI	Creating a framework for IR - IR and decision-making - the current position - the political context - IR and development
(2)	19th February BOARDROOM OLI	Collecting feedback on courses
(3)	24th February KNOWLEDGE NETWORK	Designing project evaluation
(4)	5th March HERON ROOM OLI	Using the data-base for policy decisions
(5)	12th March KNOWLEDGE NETWORK	Evaluating television and other technologies (at KN)
(6)	19th March BOARDROOM OLI	A plan for institutional research

Each seminar will take place from noon until 1:30 on the days indicated. Coffee will be provided.

Im.

cc.: Tony Bates

74.

APPENDIX F.

Open Learning Institute
of Studies

FIRST SEMESTER REPORT

COURSE: RISC III SESSION 8701

University Transfer Course.

Course No.	TOTAL	WITH DRAW	NET	1ST ASSN	EXAM SITTED	WSCE EXAM	GRADE DISTRIBUTION A	B	C	D	F	I	X/Z	J	K	% WITHDRAW	% OF NET REGISTRANTS COMPLETED	% OF NET REGISTRANTS PASSED	% OF STARTERS COMPLETED	% OF STARTERS PASSED
RISC III	19	0	19	11	10	7	4	1	2	0	0	12	0	0	0	0	37	37	64	64

Procedure

1 Course ~~manager~~/co ordinator notifies DP of course ~~manager~~ and Heads of Programme Support to receive information

2 Head of Programme Support notifies DP of course ~~manager~~ and course ~~manager~~ date of first presentation

3 DP sets print out date at time agreed with course ~~manager~~ (registrar?)

4 DP runs ~~prod~~ programme/print out on set date

5. One copy sent to course ~~manager~~, one copy to Registrar, one copy to Programme Support (anyone else?)

98

98

Douglas Learning Institute

01:53 PM

ANNUAL COURSE STATISTICS

1987/88 (Session 8703 - 8801)

University transfer courses offered:

COURSE NUMBER	REGISTRATIONS TOTAL	WITH-DREW	NET	FIRST EXAM AS SMT	LAST SCHED EXAM	GRADE EXAM	GRADE DISTRIBUTION A	B	C	D	F	I	X/Z	J	K	PERCENT WITH-DREW	% OF NET REGISTRANTS COMPLTD	% OF NET REGISTRANTS PASSED	% OF STARTERS COMPLTD	% OF STARTERS PASSED
ADMN231	13	2	11	8	6	5	2	0	0	0	3	6	0	0	0	15.4%	45.5%	18.2%	62.5%	25.0%
ADMN232	7	0	7	5	2	1	0	1	0	0	0	6	0	0	0	0.0%	14.3%	14.3%	20.0%	20.0%
ADMN411	26	1	25	20	15	13	7	2	2	0	0	12	0	0	0	3.8%	52.0%	52.0%	65.0%	65.0%
ADMN412	11	1	10	8	8	8	6	2	0	0	0	2	0	0	0	9.1%	80.0%	80.0%	100.0%	100.0%
ADMN450	14	2	12	5	1	1	0	0	0	0	1	11	0	0	0	14.3%	8.3%	8.3%	20.0%	20.0%
BIOL150	15	2	13	10	7	7	2	4	1	0	0	6				13.3%	53.8%	53.8%	70.0%	70.0%
BISC100	15	2	13	7	7	4	0	1	2	0	0	10				13.3%	23.1%	23.1%	42.9%	42.9%
BISC111	17	0	17	11	10	7	4	1	2	0	0	10			0	0.0%	36.4%	36.4%	63.6%	63.6%
BISC210	1	1	0	1	0	0	0	0	0	0	0				0	0.0%	0.0%	0.0%	0.0%	0.0%
BISC220	2	0	2	1	1	1	0	0	1	0	0				0	0.0%	50.0%	50.0%	100.0%	100.0%
BISC250	1	0	1	1	1	1	1	0	0	0					0	0.0%	100.0%	100.0%	100.0%	100.0%
CHEM111	17	2	15	11	7	6	2	1	3	0					0	11.8%	40.0%	40.0%	54.5%	54.5%
ECON200	55	5	50	30	22	20	4	10	5						0	9.1%	40.0%	38.0%	60.7%	62.5%
ECON201	18	2	16	13	10	10	7	2	1						0	11.1%	62.5%	62.5%	76.9%	76.9%
ECON401	2	0	2	0	0	0	0	0	0						0	0.0%	0.0%	0.0%	0.0%	0.0%
ECON450	2	0	2	2	2	0	0	0							0	0.0%	0.0%	0.0%	0.0%	0.0%
ENGL100	157	8	149	124	67	48	5	11					05	0	0	5.1%	29.5%	27.5%	35.5%	33.1%
ENGL101	41	2	39	28	22	19	3						20	0	0	4.9%	48.7%	46.2%	67.5%	64.3%
ENGL102	6	0	6	3	2	1							5	0	0	0.0%	16.7%	16.7%	33.3%	33.3%
ENGL220	10	0	10	8	5	4					0	6	0	0	0	0.0%	40.0%	40.0%	50.0%	50.0%
ENGL221	13	0	13	10	6						0	6	0	0	0	0.0%	53.8%	53.8%	70.0%	70.0%
ENGL924	3	0	3	2	1						0	2	0	0	0	0.0%	33.3%	33.3%	50.0%	50.0%
ENGL925	2	0	2	1							0	1	0	0	0	0.0%	50.0%	50.0%	100.0%	100.0%
ENGL932	5	1	4	3						0	0	2	0	0	0	20.0%	50.0%	50.0%	66.7%	66.7%
GEOG230	17	2	15	9						2	1	7	0	0	0	11.8%	53.3%	46.7%	88.9%	77.8%
GLOG270	4	1	3							0	0	2	0	0	0	25.0%	33.3%	33.3%	33.3%	33.3%
HIST121	44	5	39						7	3	0	1	25	0	0	11.4%	35.9%	32.2%	51.9%	48.1%
HIST210	8	4	4				1	0	2	0	0	1	2	0	0	50.0%	50.0%	25.0%	100.0%	50.0%
HIST240	2	0					0	2	0	0	0	0	0	0	0	0.0%	100.0%	100.0%	100.0%	100.0%
HIST420	0	0					0	0	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%
MATH101	21	0				10	5	3	0	0	0	1	12	0	0	0.0%	42.9%	38.1%	50.0%	40.4%
MATH102	50					24	8	8	5	0	0	4	22	0	0	6.0%	53.2%	44.7%	72.0%	65.6%
MATH110	35				8	5	2	1	1	0	0	1	27	0	0	8.6%	15.6%	12.5%	30.2%	25.8%
MATH111	26				9	7	1	1	1	1	2	11	0	0	0	11.5%	26.1%	17.4%	40.0%	30.0%
MATH210	3				1	0	0	0	0	0	0	3	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%
PSYC101	55			.0	30	27	19	6	2	0	0	1	52	0	0	5.2%	35.0%	33.8%	46.7%	45.0%
PSYC102	18			16	15	14	5	7	1	0	0	0	4	0	0	0.0%	77.8%	77.8%	87.5%	87.5%
PSYC210	10			9	8	7	5	1	1	0	0	0	6	0	0	0.0%	60.0%	60.0%	66.7%	66.7%
PSYC230	10	0	10	7	7	5	2	1	1	0	0	0	7	0	0	0.0%	40.0%	40.0%	57.1%	57.1%
PSYC440	15	1	14	7	7	5	2	2	3	0	0	0	9	0	0	6.7%	35.7%	35.7%	71.4%	71.4%
PSYC445	7	0	7	6	0	0	6	2	0	0	0	1	0	0	0	0.0%	85.7%	85.7%	100.0%	100.0%
SOCI101	21	5	16	11	9	9	1	6	2	0	0	0	7	0	0	23.8%	56.3%	56.3%	81.8%	81.8%
SOCI102	5	0	5	4	4	4	1	2	0	0	0	1	1	0	0	0.0%	80.0%	80.0%	100.0%	75.0%
SOCI210	6	1	5	3	2	2	0	0	2	0	0	0	3	0	0	16.7%	40.0%	40.0%	66.7%	66.7%
SOCI410	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%
SOCI430	21	2	19	13	9	9	1	6	2	0	0	10	0	0	0	9.5%	47.4%	47.4%	69.2%	69.2%

AGGREGATED FIGURES FOR ALL SEMESTERS IN YEAR 87/88

(continued for all courses in all areas)

APPENDIX G

ANNUAL STATISTICAL SUMMARY OF COURSES

1987/88 (Sessions 8705 - 8803)

	No of different courses	No of session sessions	ENROLMENTS No of enrolments (starters)	Withdrawals No	%	Net	EXAMS No sitting	No passing	Former % of starters	% of net
Open Univ										
OLI										
Other										
Total										
Open College										
CTV										
ABE										
Other (?)										
Total										
General education (KN)?										
ALL EXAM PROGRAMMES										

NOTE. A separate table will be necessary for those courses with no measure of completion (no exam or final assignment)